2009 SENATE NATURAL RESOURCES

SCR 4015

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

Senate Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: February 12, 2009

Recorder Job Number: 9395

Committee Clerk Signature	

Minutes:

Senator Lyson opens the hearing on SCR 4015, directing the Legislative Council to study the potential cost impact of 49-02-23 on the state's utility ratepayers and to the state's renewable electricity generation potential.

Senator Mathern introduced the bill (handed out copy of century code attachment #1). We have a law that prevents us from looking at all of the issues when a decision of cost needs to be made for a public service utility. This resolution suggests that we ought to study what has gone on and the implications for the future.

Mary Mitchell, Energy Coordinator for the Dakota Resource Council, testified in support of resolution 4015 (see attached testimony #2).

Dean Hulse, North Dakota landowner, I believe one of the reasons we do not have wind energy in Bottineau County is because the state's energy policy is imbalanced. Walks through handouts (see attachments #3).

Senator Schneider has either the internal or external costs associated with either type of electricity changed in the last fourteen years?

Dean Hulse I would imagine they have. The original investors signed an agreement with the Minnesota Department of Commerce that they would provide 100% offset of CO2 emissions.

One of the ways they could do that was by setting aside funds in a separate account on the owners books based on the price of $10 per ton of CO2. Utilities operating in this state have signed in another state that there should be at least $10 per ton for CO2 and we can't even discuss it here.

Senator Lyson closed the hearing on resolution 4015 for the day. (Holding it open for people not able to make it in.)

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

Senate Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: February 13, 2009

Recorder Job Number: 9464

Committee Clerk Signature	

Minutes:

Senator Lyson opened the discussion on SCR 4015.

Andrea Stomberg, Montana Dakota Utilities Company, we as a company feel there are some inaccuracies that need to be addressed at least. I was unable to make it yesterday and I understand that some of the testimony said that MDU agreed that it was a carbon costs. I think it is important to clear the record that it is an erroneous statement. We were indeed party to a settlement agreement with the DOC in which the Minnesota load serving entities participants in the project. As an option to develop carbon offsets offered to set aside ten dollars a ton for their Minnesota related portions of carbon emissions to support research in the carbon sequestration and capture. Other sections that were not related to carbon issues were pertinent to commitments that were made that involved MDU. I think it is really clear to get the record straight on that, in terms of what we believed we signed with that settlement agreement. The externality section of the century code prohibits PSC from considering speculative costs when they look at resource selections that a utility has made. We go in and say we think this is the best cost option for our customers. We clearly have to forecast gas, fuel, and commodities costs. I main point was to clarify some errors, but to also discuss briefly the externality issues itself.

Senator Lyson asked are you in favor of the resolution?

Andrea stomberg no I would recommend a Do Not Pass. I think we have a pretty good process in this state.

Sandi Tabor, Lignite Energy Council, our traditional concern about externalities is that is arbitrariness about what would be the cost of these other things that might impact the cost of electricity. It puts other fuel sources at the same level as lignite and that makes us less competitive in the long run. It has always been our concern. It has always been our concern about the arbitrariness of the cost. This is not how they do the rate structure once they know the rate costs. This is before when hey are doing the planning. Traditionally we would just come in and oppose this, but we have been talking about the need to look at perhaps our own set of externalities and that is the economic impact of the next generation act in Minnesota on North Dakota. We were thinking that instead of coming in opposing this we thought we should be something positive. Which is to restructure the resolution in such a way that we would have the Industrial Commission, for instance, conduct a study during the interim and report back to the appropriate interim legislative committee with the results? Perhaps that will help us as we continue our dialog with Minnesota about what their legislation is doing to our state. We would like to talk to Senator Mathern about this also. If you are interested in revising the resolution we would do that otherwise we recommend a Do Not Pass.

Senator Triplett I think we should encourage Sandi to meet with Senator Mathern and bring back a proposed amendment next week.

Senator Lyson closed the hearing on SB 4015.

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

Senate Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: February 26, 2009

Recorder Job Number: 9769

Committee Clerk Signature	Kate

Minutes:

Senator Lyson Opens the discussion on SCR 4015, directing the Legislative Council to study the potential cost impact of 49-02-23 on the state's utility ratepayers and to the state's renewable electricity generation potential. I also have some amendments that were given to me to handout. (See attachment #1).

Sandi Tabor, Lignite Energy Council, rather than just opposing the bill, we thought we could amend it to show us something concrete, in a way of doing an economic study on some of the Minnesota Next Generation Act. This study will actually be looking at actual costs. The Minnesota bill will be a good first step, because it is designed and there are certain parts of that bill that we can look at. It will give you a better foundation for your decision making. I did go over this with Senator Mathern. He just had a few minor changes to the language to make it appear softer, and we have no problem with them.

Senator Hogue I noticed the original resolution asks the legislative council to study this and now we are switching to the industrial commission can you explain this?

Sandi Tabor we put in the industrial commission because through the lignite research council there are some administrative funds that are set aside to do studies and the industrial commission could tap into those funds to do the studies.

Senator Lyson Do you know if they are going to have any legislators on the study?

Sandi Tabor the lignite research council has a couple legislators on there. I believe Senator Freborg and Senator Christmann are on there.

Senator Triplett I agree with Senator Mathern that it does read more gently, but it is the same result. I move to amend .0101 to say "where as, should the state of Minnesota not adopt a plan".

Senator Erbele seconds the motion.

Roll call was taken and the amendment was adopted.

Senator Triplett I move a Do Pass as amended on SCR 4015.

Senator Erbele seconds the motion.

The resolution received a Do Pass as amended on a vote of 7 to 0.

Senator Lyson closed the discussion.

93071.0101
Title.

Prepared by the Legislative Council staff for
Senator Lyson
February 24, 2009

PROPOSED AMENDMENTS TO SENATE CONCURRENT RESOLUTION NO. 4015

Page 1, line 1, after "resolution" replace the remainder of the resolution with "directing the Industrial Commission to conduct a study of the economic impacts of proposed federal, regional, and state carbon cap and trade systems, including the Minnesota Next Generation Energy Act of 2007.

WHEREAS, North Dakota has over an 800-year supply of secure and economically recoverable lignite; and

WHEREAS, North Dakota receives over $100 million of annual tax revenue from the lignite industry; and

WHEREAS, North Dakota lignite is used to generate electricity for more than two million people in the Northern Great Plains Region and to produce synthetic natural gas from coal that heats 400,000 homes and businesses in Eastern states; and

WHEREAS, agriculture is a major industry in North Dakota and is dependent on carbon-based fuels; and

WHEREAS, North Dakota's citizens are dependent on fossil fuel-based electricity generation; and

WHEREAS, federal, regional, and state initiated cap and trade systems will have a disproportional negative effect on the North Dakota economy; and

WHEREAS, Minnesota attempts to regulate greenhouse gas emissions from North Dakota power plants by including emissions from the generation of electricity imported from outside Minnesota and consumed in Minnesota within the definitions of the Minnesota Next Generation Energy Act of 2007; and

WHEREAS, failure by the state of Minnesota to adopt a plan to implement the greenhouse gas emission reduction requirements of the Minnesota Next Generation Energy Act of 2007 by August 1, 2009, will result in a prohibition against importing fossil fuel-based electricity from new facilities located in North Dakota and entering new long-term power purchase agreements with fossil fuel-based power plants located in North Dakota;

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF NORTH DAKOTA, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN:

That the Industrial Commission conduct a study of the economic impacts of proposed federal, regional, and state carbon cap and trade systems, including the Minnesota Next Generation Energy Act of 2007; and

BE IT FURTHER RESOLVED, that the Industrial Commission report the findings and recommendations of the study to the Legislative Council by September 1, 2010."

Renumber accordingly

Date: 2, 26, 2009

Roll Call Vote #: #1 4015

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES

Senate Natural Resources Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 93071.0102

Action Taken ☒ Do Pass ☐ Do Not Pass ☐ Amended ☒ Amendment

Motion Made By Sen. Triplett Seconded By Sen. Erbele

Senators	Yes	No	Senators	Yes	No
Senator Stanley W. Lyson, Chairman	✓		Senator Jim Pomeroy	✓	
Senator David Hogue, Vice Chairman	✓		Senator Mac Schneider	✓	
Senator Robert S. Erbele	✓		Senator Constance Triplett	✓	
Senator Layton W. Freborg	✓				

Total (Yes) 7 No 0

Absent

Floor Assignment

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

Voice vote on Amendment only.

Date: 02/26/2009

Roll Call Vote #: #2 4015

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES

Senate Natural Resources Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☒ Do Pass ☐ Do Not Pass ☒ Amended ☐ Amendment

Motion Made By Sen. Triplett Seconded By Sen. Erbele

Senators	Yes	No	Senators	Yes	No
Senator Stanley W. Lyson, Chairman	✓		Senator Jim Pomeroy	✓	
Senator David Hogue, Vice Chairman	✓		Senator Mac Schneider	✓	
Senator Robert S. Erbele	✓		Senator Constance Triplett	✓	
Senator Layton W. Freborg	✓				

Total (Yes) 7 No 0

Absent _____

Floor Assignment Sen. Triplett

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

REPORT OF STANDING COMMITTEE

SCR 4015: Natural Resources Committee (Sen. Lyson, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (7 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SCR 4015 was placed on the Sixth order on the calendar.

Page 1, line 1, after "resolution" replace the remainder of the resolution with "directing the Industrial Commission to conduct a study of the economic impacts of proposed federal, regional, and state carbon cap and trade systems, including the Minnesota Next Generation Energy Act of 2007.

WHEREAS, North Dakota has over an 800-year supply of secure and economically recoverable lignite; and

WHEREAS, North Dakota receives over $100 million of annual tax revenue from the lignite industry; and

WHEREAS, North Dakota lignite is used to generate electricity for more than two million people in the Northern Great Plains Region and to produce synthetic natural gas from coal that heats 400,000 homes and businesses in Eastern states; and

WHEREAS, agriculture is a major industry in North Dakota and is dependent on carbon-based fuels; and

WHEREAS, North Dakota's citizens are dependent on fossil fuel-based electricity generation; and

WHEREAS, federal, regional, and state initiated cap and trade systems will have a disproportional negative effect on the North Dakota economy; and

WHEREAS, Minnesota attempts to regulate greenhouse gas emissions from North Dakota power plants by including emissions from the generation of electricity imported from outside Minnesota and consumed in Minnesota within the definitions of the Minnesota Next Generation Energy Act of 2007; and

WHEREAS, should the state of Minnesota not adopt a plan to implement the greenhouse gas emission reduction requirements of the Minnesota Next Generation Energy Act of 2007 by August 1, 2009, the result will be a prohibition against importing fossil fuel-based electricity from new facilities located in North Dakota and entering new long-term power purchase agreements with fossil fuel-based power plants located in North Dakota;

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF NORTH DAKOTA, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN:

That the Industrial Commission conduct a study of the economic impacts of proposed federal, regional, and state carbon cap and trade systems, including the Minnesota Next Generation Energy Act of 2007; and

BE IT FURTHER RESOLVED, that the Industrial Commission report the findings and recommendations of the study to the Legislative Council by September 1, 2010."

Renumber accordingly

2009 HOUSE NATURAL RESOURCES

SCR 4015

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

House Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: 3-13-09

Recorder Job Number: 10922

Committee Clerk Signature Nancy L. Gerhardt

Minutes:

Chairman Porter – Open the hearing on SCR 4015.

Senator Tim Mathern – See **Attachment # 1**. Questions

Rep. Nottestad – You left open your statement the group that requested you put this in. Would you share with us what group requested you put this resolution in?

Senator Mathern – I brought it in at the request of the Dakota Resource Council.

Rep. Keiser – Why not the legislative council?

Senator Mathern – I thought the same case. The perponenants of the amendment brought it to the industrial commission. I think because there are resources there to do the study. We allocate resources to the industrial commission through our tax transfer so there are resources there to do such a study. This is complicated, it's expensive, and I think if we put into legislative council we might not be willing to put the proper money there to study it correctly.

Rep. Keiser – That might well be true, but we make the policy eventually. Frequently these are structured and that's why I ask. With other areas we said legislative council shall study, and then we put the money in so that there was funding to support the industrial commission to do this. I agree, it's complicated, it's expensive, but I just wondered why the oversight of the legislative council.

Senator Mathern – Just to clarify, I have no doubt about that point of view. I support that point of view. This was amended in the senate outside of my awareness. I would have no question if you wanted to change that as being appropriate policy for legislature.

Sandi Tabor – Lignite Energy Council – See **Attachment # 2**.

Chairman Porter – The industrial commission could do this now without this resolution.

Ms. Tabor – They could, we wanted to make sure there was a way for us to report directly to you. That's the 2nd whereas in the study. It gives us a clear ability, and actually a requirement, that we report back to you, and we think that's important that you hear the results of those studies.

Chairman Porter – With the empower commission being set up with representation from all the sectors of energy, would they not be a better group to study this since it falls back economic feasibility than the industrial commission?

Ms. Tabor – The reason we put it in the industrial commission is simply the access to direct funding. This study will cost a fair amount of money.

Chairman Porter – If we are mandating this out of them shouldn't it carry a fiscal note?

Ms. Tabor – It will come through special funds. I don't know if you'd use a fiscal note.

Rep. Keiser – Over 50,000.

Ms. Tabor – We could get a fiscal note developed. We could give you a ballpark; I don't know exactly how much it's going to cost.

Chairman Porter – We will probably have to request that.

Rep. Keiser – What is that special fund and how much is in it?

Ms. Tabor – We believe it would qualify for funding through the lignite research council's administrative dollars. That money is set aside specifically for studies.

Rep. Keiser – How much is there toward the study?

Ms. Tabor – I don't know for sure how much is in that administrative fund.

Rep. Keiser – If we were to restructure this bringing it through either empowered legislative council all we need to do is put in another "whereas" stating the industrial commission can access these funds and conduct the study and report.

Chairman Porter – Further testimony in support of SCR 4015? Is there any opposition to SCR 4015?

Mary Mitchell – Dakota Resource Council – See **Attachment # 3**.

Rep. Keiser – Is it not the case that the public service commission has chosen not to comment because there is currently a law suit going on?

Ms. Mitchell – Yes, I'm sure that's the case, I don't know for sure.

Chairman Porter – Further testimony in opposition to SCR 4015. Seeing none we will close the hearing on SCR 4015.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

House Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: 3-13-09 Discussion

Recorder Job Number: 10925

Committee Clerk Signature Nancy L. Gerhardt

Minutes:

Chairman Porter – Pull out SCR 4015. Discussion?

Rep. Keiser – I think this is a very worthwhile concept, the only problems I think the legislative council should select and assign, and they would assign it to the proper committee. We then should put in that the industrial commission get the funding. I don't have the amendment, but that's my own reservation. Without the legislature participating in this you get a proposal back to you without any oversight. I agree with the points Sandy made, this is a very technical important issue. As you heard there are court cases pending, there are big policy decisions to come as a result of this. I do think we have a committee in place that can well manage this.

Chairman Porter – We certainly don't have to take this one up Rep. Keiser if you want to work on an amendment.

Rep. Keiser – I'd be happy to do that.

Chairman Porter – We will put this on hold.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 4015

House Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: 3-13-09

Recorder Job Number: 11272

Committee Clerk Signature Nancy L. Gerhardt

Minutes:

Chairman Porter – Pull up SCR 4015.

Rep. Keiser – Move Do Pass and place on the Consent Calendar.

Chairman Porter – We have a motion for a Do Pass to be on the Consent Calendar.

Rep. DeKrey – 2nd.

Chairman Porter – A 2nd from Rep. DeKrey. Any Discussion? All those in favor? Unanimous voice vote – Opposed – none. Motion carries.

Date: 3-13-2009
Roll Call Vote #:

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. SCR 4015

House Natural Resources Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

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

Motion Made By Keiser Seconded By DeKrey

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

Unanimous Vote
Voice

Total (Yes) 13 No 0

Absent 0

Floor Assignment Keiser

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

Concent Calandar

REPORT OF STANDING COMMITTEE

SCR 4015, as engrossed: Natural Resources Committee (Rep. Porter, Chairman) recommends **DO PASS** and **BE PLACED ON THE CONSENT CALENDAR** (13 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). Engrossed SCR 4015 was placed on the Tenth order on the calendar.

2009 TESTIMONY

SCR 4015

2.11.09 Senator Tim Mathern

Present Century Code

49-02-23. Consideration of environmental externality values prohibited. The commission may not use, require the use of, or allow electric utilities to use environmental externality values in the planning, selection, or acquisition of electric resources or the setting of rates for providing electric service. Environmental externality values are numerical costs or quantified values that are assigned to represent either:

1. Environmental costs that are not internalized in the cost of production or the market price of electricity from a particular electric resource; or

2. The alleged costs of complying with future environmental laws or regulations that have not yet been enacted.

Mary Mitchell #2

Dakota Resource Council
"Organizing North Dakotans Since 1978"
P.O. Box 1095~ Dickinson, ND~ 58602-1095
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Testimony in support of SCR 4015
Senate Natural Resources
February 12, 2009

Chairman Lyson and Committee Members,

I am here in support of Senate Concurrent Resolution 4015.

NDCC 49-02-23 is an outdated law that could leave ratepayers in our state unprotected against escalating utility costs. A study of the potential impacts of this law on ratepayers and on the development of renewable energy is timely and necessary.

The proponent of HB 1312, the 1995 bill which created 49-02-23, claimed that the law was needed to protect ratepayers from costs associated with environmental "externalities," namely carbon dioxide. Ironically, it would appear to be having the opposite effect.

Since the Public Service Commission is forbidden to consider possible costs associated with electrical generation, the rulings that the PSC makes do not reflect all potential costs to utility ratepayers.

A recent example of this concerns the Big Stone II power plant in South Dakota. In PSC hearings here, the Commission was prevented from hearing testimony regarding the costs of carbon regulation that will impact ratepayers. In similar hearings in Minnesota, the Minnesota PUC required Otter Tail Power to protect ratepayers by capping costs for carbon regulation. Costs of carbon regulation are being estimated from $10-40 per ton of coal burned.

Another problem with this law is that it tips the scales away from renewable energy, which has few environmental impacts and in some cases—like wind—emits no carbon dioxide, by ignoring the potential costs of pollution. An illustration of this is in the attached charts, which were part of the HB 1312 testimony.

Respectfully Submitted,

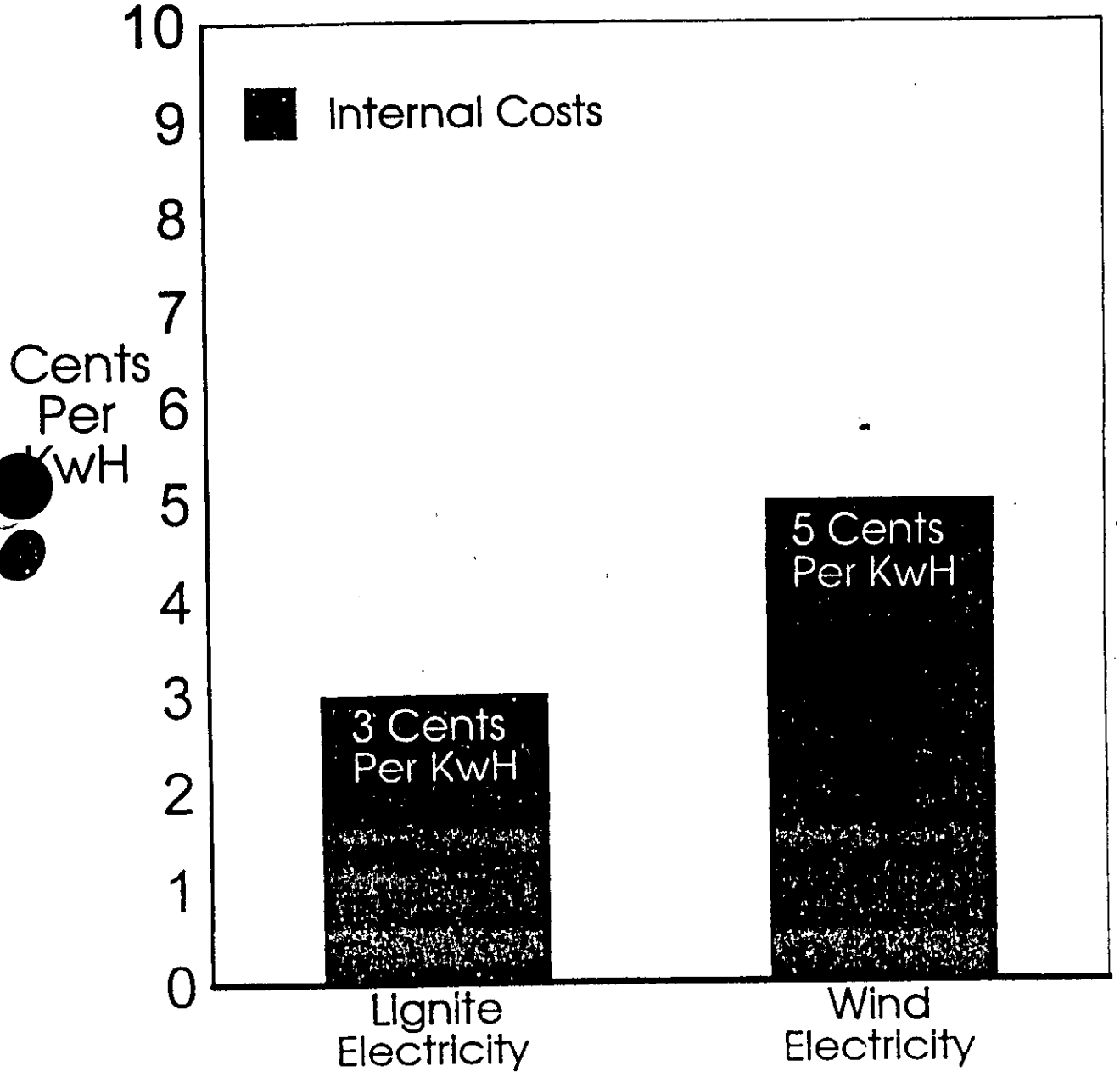
Mary

Mary Mitchell
Dakota Resource Council

"Members of Dakota Resource Council use grassroots actions to influence public opinion and shape public policy to protect agriculture, natural resources, livelihoods and community well-being."

1/16/95

Comparison of Lignite Energy & Wind Energy Without Externality Cost

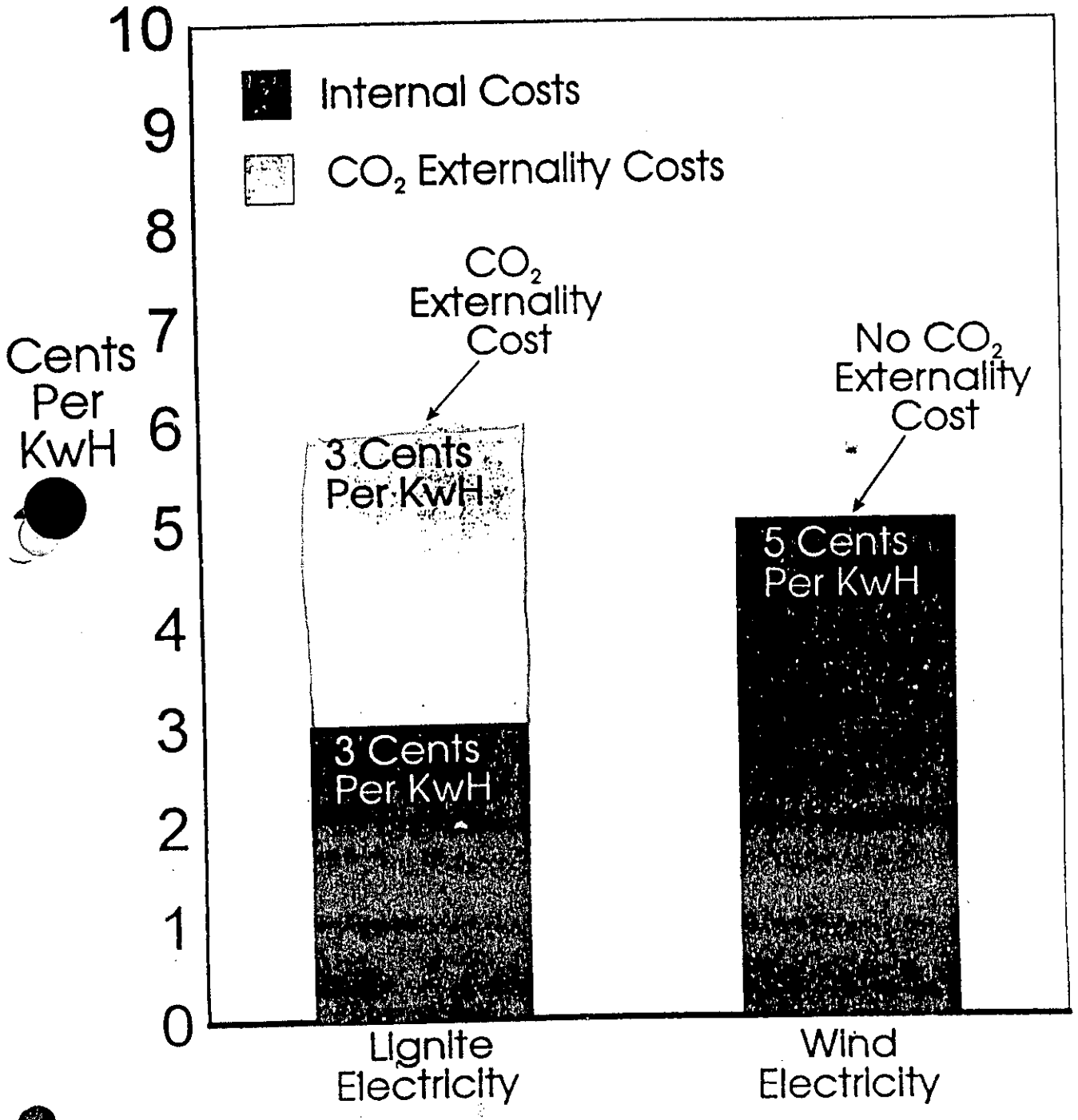


Without Externalities, Lignite Wins

Exhibit 1

1/16/95

Comparison of Lignite Energy & Wind Energy With CO_2 Externality Cost



With Externalities, Lignite Loses

Exhibit 2

#3

Testimony in support of SCR 4015

February 12, 2009

Chairman Lyson and members of the Senate Natural Resources Committee,

My name is Dean Hulse, and I am testifying today as a North Dakotan who owns farm land in Bottineau County, which has yet to benefit from wind energy development. I am concerned that the state's energy policy is out of balance (see attached).

North Dakota Century Code Section 49-02-23 is a prime example of the state's energy policy imbalance. That so-called externalities law, introduced during the 1995 session as HB 1312, represents a reactionary attempt to counter efforts in Minnesota to account for the environmental costs associated with electricity generation. Further, the testimony of John Dwyer with the Lignite Energy Council demonstrates that HB 1312 was focused solely on carbon dioxide (CO_2) emissions.

Included in the legislative testimony for HB 1312 are two telling graphics: one is titled "Comparison of Lignite Energy & Wind Energy With CO_2 Externality Cost." At the bottom of that graphic is this statement: "With Externalities, Lignite Loses." The second graphic is titled "Comparison of Lignite Energy & Wind Energy Without CO_2 Externality Cost." And of course, the statement at the bottom of that graphic is "Without Externalities, Lignite Wins."

NDCC 49-02-23 is tilting the energy playing field in favor of lignite coal. And I'm not the only person who believes so. Consider the following from the editorial writers at the Grand Forks Herald, which appeared in the paper's January 23, 2008 opinion:

> This absurd rule must be changed—and the coal industry ought to be lobbying to do just that.
>
> Why is repealing the law in the industry's best interests?
>
> Because it declares in no uncertain terms that the industry is willing to shuck off any unfair advantage and compete against other forms of energy fair and square.

Not only does NDCC 49-02-23 create an unfair advantage for lignite coal, the law also prevents the North Dakota Public Service Commission from fulfilling its obligation to ratepayers. In fact, because of what I believe is a misunderstanding of the law, the PSC refused to hear testimony relating to future costs of CO_2 mitigation and therefore has blessed South Dakota's proposed Big Stone II power plant.

Meanwhile, Minnesota's Public Utilities Commission has capped how much Otter Tail Power Company can charge its Minnesota customers for CO_2 costs resulting from Big Stone II. If Otter Tail can't recoup its costs in Minnesota, where might the company look?

Here's the irony of NDCC 49-02-23: As a result of the PSC's ruling, North Dakota ratepayers could end up paying for CO_2 costs incurred by a Minnesota utility's operation of a South Dakota coal plant that burns Powder River Basin coal.

Please vote "Do Pass" on Senate Concurrent Resolution No. 4015 so that a study can reveal how many negative consequences are accruing to North Dakota's ratepayers and land owners as a result of this ill-conceived law.

Thank you for your time.

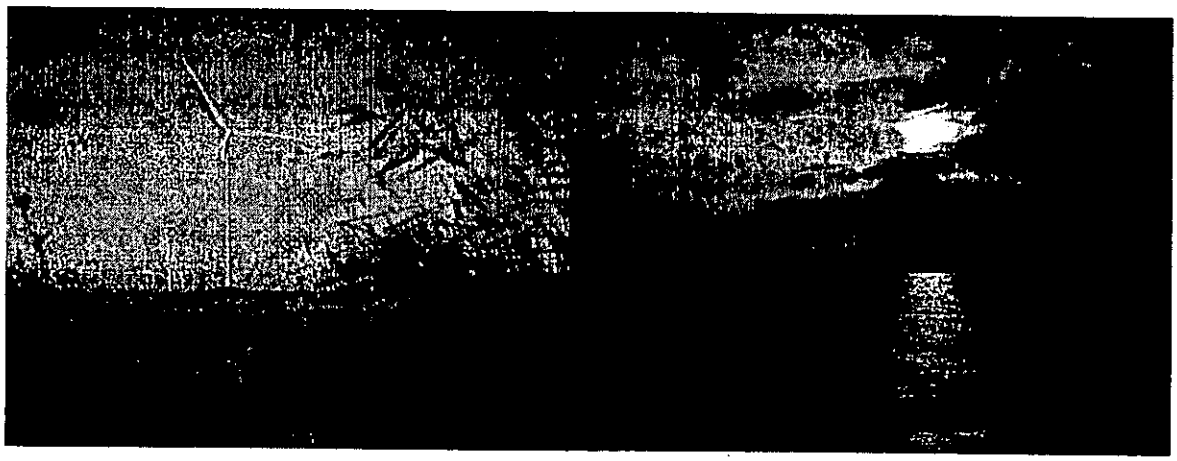
Respectfully submitted,

Dean Hulse
1437 East Gateway Circle
Fargo

ENERGYWATCHGROUP

Supported by Ludwig Bölkow Stiftung

Wind Power in Context – A clean Revolution in the Energy Sector



December 2008

Author/Responsibility for this report:
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Member of the Swiss Parliament and its Energy Committee
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Scientific and parliamentarian advisory board:

see at **www.energywatchgroup.org**

About Energy Watch Group

Energy policy needs objective information.

The Energy Watch Group is an international network of scientists and parliamentarians. The supporting organization is the Ludwig-Bölkow-Foundation. In this project scientists are working on studies independently of government and company interests concerning:

- the shortage of fossil and nuclear energy resources,
- development scenarios for regenerative energy sources,

as well as,

- strategic deriving from these for a long-term secure energy supply at affordable prices.

The scientists are therefore collecting and analysing not only ecological but above all economical and technological connections. The results of these studies are to be presented not only to experts but also to the politically interested public.

Objective information needs independent financing.

A bigger part of the work in the network is done unsalaried. Furthermore the Energy Watch Group is financed by donations, which go to the Ludwig-Boelkow-Foundation for this purpose.

For more details, please visit our website or contact us at the following location:

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www.energywatchgroup.org

Model findings

	Scenario A	Scenario B	Scenario C	Scenario D
World electricity generation growth rate 2007-2040	3.60%	3.60%	1.8%	1.8%
growth of annual additions of wind power	30.4%	15.2%	30.4%	15.2%
Moment of renewable generation surpassing annual consumption growth (TWh)	2019	2034	2015	2023
when will wind power cross a 50% market share of all new installed power plants (CF100-equivalents) [new installed = additions + replacements]	2019	2033	2017	2026
Market conquest: All power plant additions and replacements covered by wind (accompanied by solar and other renewables)	2022	2038	2019	2031
how much GW wind power capacity would there be in 2030? (GW-CF25)	13457	3782	8126	3782
how much wind power would be produced in 2030 (TWh)?	29471	8283	17796	8283
how much other renewable [hydro, biomass, geothermal] power would be produced in 2030 (TWh)?	5120	5120	5120	5120
how much non-renewable power would be produced in 2030 (TWh)?	10290	31475	7070	16583
how much non-renewable power would be produced in 2040 (TWh)?	0	23780	0	6714
peak year of non-renewable power generation TWh (and CO2-peak)	2018	2032	2014	2022
peak TWh of nonrenewable power generation	21969	31794	17703	19091
total nonrenewable electricity generation 2008-2040 (TWh)	432,978	860,192	354,091	531,543
when will CO2-emissions for the first time be lowered compared to 1990 (Kyoto-benchmark)?	2031	after 2040	2028	2038

Figure 11 survey of model findings

The most decisive factor for climate and environment protection is a high growth rate for wind and solar. Most importantly, it is the period *up to 2020* where most investment and technology decisions will be taken. After 2020, the scenarios tend to converge, with renewable energies on the rise in every scenario, but with a huge difference in CO_2 and hazardous (radioactive) waste.

Underlying Innovations

A consequence of the rapidly growing wind power industry is a virtuous cycle of technological improvement driving wind-generated electricity to be a cheaper-than-coal solution. Better blades, higher and cheaper towers, turbines of a bigger size, new technical designs and higher reliability have reduced and will reduce specific costs per kWh. With every increase of turbine efficiency, more areas become economically accessible which before were considered "no-wind zones". In the offshore sector, new foundation types and floating turbines are being developed, and a growing number of companies is entering this new market.

Social Innovation

For the first time in decades, the energy supply has seen a de-centralization and de-monopolization caused by thousands of individuals and many small and medium enterprises investing in wind energy. Community power (such as Bürgerwindparks, cooperative and

municipality owned wind farms etc) has become a social innovation and a driver of a more sustainable energy system in technical, environmental, institutional and economic terms.

Far-off Gigawatt clusters for wind

Some off-grid-locations are so attractive in terms of wind speed that wind farmers or governments are willing to build high-voltage-connections to load centers themselves, provided bureaucratic hurdles for new lines are removed. Advancing peripheral wind resources, complementary to grid embedded sites, have a number of positive implications. Turbine sites over-the-horizon have no neighbors involved. Offshore, connected by undersea transmission lines, they can eliminate aesthetic concerns and bird issues. Since many large load centers are located at coasts, turbines at a distance of some 30-50 kilometers can be installed quite close to load, decreasing transmission costs.

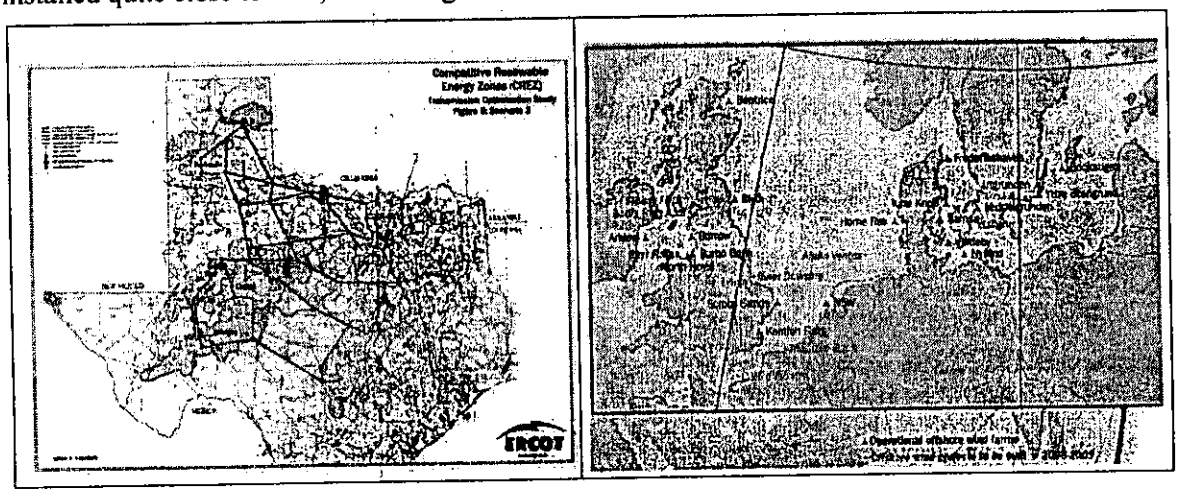

Figure 12 Texas wind integration plan adopted by the Texas PUC (left) and offshore developments 2009/2010 in European waters (right)

Over the next few years many far-off wind clusters will start production in rural areas, deserts and the sea, and they will more than pay for the additional costs in transmission, construction and maintenance due to better wind speeds and higher capacity factors. Regions with best wind resources close to city populations include the US Midwest and Southern Canada, Brazil's North-East, Patagonia, Morocco, Egypt and the Red Sea region, Norway, North Sea and Atlantic Ocean coasts, North-West Russia and the Baltic States, Southern Russia, Ukraine, Turkey, Iran and India, Inner Mongolia, South China, Central Vietnam, South Australia, New Zealand and South Africa. All these regions have potentially large customers within a 1000-mile range, accessible with proven HVDC grid technology, or AC connections for smaller distances.

Financial benefits for these regions, for the owners of windy areas and for the owners of wind farms can be substantial. Local communities investing in wind farms or selling licenses for land lease can earn money. Between $2000 and $20,000 per turbine or MW are cited as a

normal benefit for the land owners in the US. Corn or wheat farmers signing contracts for installations get more income from wind turbines than from agriculture, without being forced to abandon the latter. In some municipalities in Northern Germany or Texas, the wind industry has become the biggest taxpayer.

Breakthrough in regulations

New and better regulations can bring breakthroughs in terms of economics and availability of clean power. In 2005, eight so-called Competitive Renewable Energy Zones (CREZ) were created in Texas paving the way for thousands of turbines. Companies in the wind business get the acknowledgment that if they build within a CREZ, transmission lines will be promptly available. Best sites are designated in a competitive way, bringing substantial cost reductions.

In July 2008, the Public Utility Commission (PUC) of Texas selected a transmission scenario that will give access to a total of 18,456 MW of wind power from these CREZ zones in West Texas and the Texas Panhandle to metropolitan areas. The selected Scenario is estimated to cost US$4.93 billion, or around US$4/month per residential customer, once grid constructions are completed and costs are reflected in rates. The benefits, however, are much higher than the 4.93 billion invested in transmission: The new wind brought online will save $1.7 billion *per year* in fuel costs, repaying the $4.9 billion cost of the investment in 2.9 years because the "*average system fuel-cost savings for each megawatt-hour of wind in this scenario was $38/MWh* [=3.8 US-Cents per kWh]."

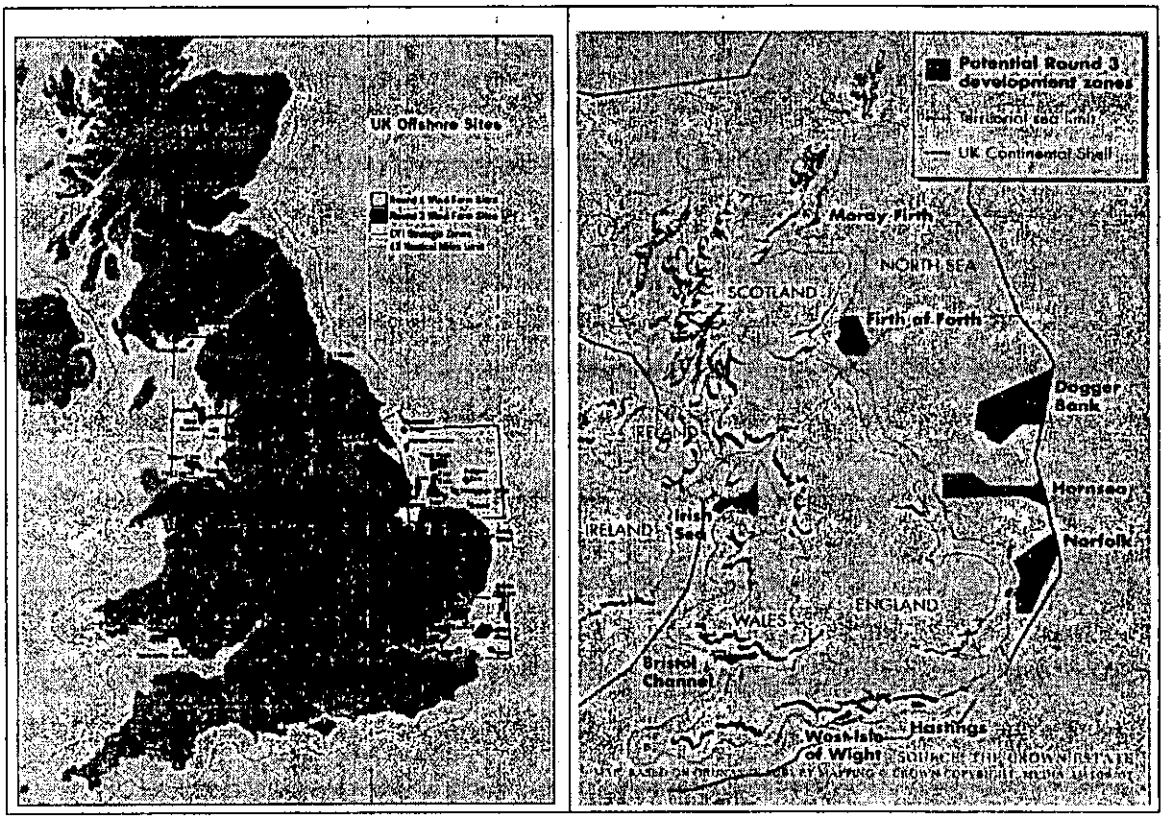

Figure 13 British offshore wind areas Round 1, 2 (left) and Round 3 (right)

Future potential: lignite coal versus North Dakota wind

Generating capacity of coal-fired energy in region:

- Antelope Valley—900 MW
- Coyote Station—414 MW
- Stanton Station—202 MW
- Leland Olds—650 MW
- Milton R. Young—705 MW
- Coal Creek—1,100 MW
- Heskett Station—100 MW
- Lewis & Clark Station (in Montana)—48 MW
- Spiritwood (under construction)—99 MW

Total—4,218 MW of coal-fired generation capacity

Therefore, 4,218 MW of generation capacity X 8,760 hours/per year = 37 million MWh of annual energy potential from lignite coal. At this rate of exploitation, the coal industry estimates lignite reserves will last for 800 years. Put another way, lignite reserves equal about 29.6 billion MWh of lifetime energy potential (800 years X 37 million MWh of annual potential).

Meanwhile, North Dakota's wind energy resource offers about 1.2 billion MWh of annual energy potential, according to the American Wind Energy Association. Put another way, if North Dakota burned its coal at a rate to match the state's annual wind energy potential, **North Dakota's lignite reserves would be exhausted in about 25 years**.

Question: Why are North Dakota's policy makers mandating such favorable treatment for a finite resource?

Attachments to the Testimony of Dean Hulse regarding SCR 4015

unreasonableness, or unjustness, within a reasonable time, the commission shall take the action necessary in an appropriate proceeding to obtain relief from such rates, rules, or practices. If the commission deems it necessary, the attorney general, with such other assistance as may be provided by law, shall prosecute any charge growing out of any such discrimination.

49-02-19. Power to fix special rates - Public service commission. Repealed by omission from this code.

49-02-20. Notice to be given before special rate fixed. Repealed by S.L. 1963, ch. 322, § 2.

49-02-21. Power of commission to regulate raising and lowering of electric supply and communication lines. The public service commission shall have power:

1. To regulate the raising and lowering of electric supply and communication lines to permit the movement of buildings or other bulky objects; and to adopt and promulgate, after notice and hearing, reasonable rules and regulations pertaining thereto.

2. To require, after notice and hearing, increased clearances in specific locations where electric supply and communication lines cross public roads and streets, provided that the movement of buildings or other bulky objects thereon is sufficiently frequent to so warrant.

49-02-22. Charges for raising and lowering lines - Reimbursement for unreasonable delay. Any party requesting the raising or lowering of electric supply and communication lines shall be required to pay not more than the actual cost reasonably and necessarily incurred therefor. The commission shall, upon application, and after notice and hearing, review and determine the reasonableness of any charges assessed for the raising and lowering of electric supply and communication lines, and if said charges are found unreasonable, the commission shall fix a just and reasonable charge; provided, however, that any person, firm, corporation, or limited liability company in charge of electric supply or communication lines, who shall fail, except for good cause, to have said lines raised or lowered to permit the movement of buildings or other bulky objects at the time agreed upon, shall be liable for reasonable costs, damages, and expenses occasioned by such unreasonable delay.

49-02-23. Consideration of environmental externality values prohibited. The commission may not use, require the use of, or allow electric utilities to use environmental externality values in the planning, selection, or acquisition of electric resources or the setting of rates for providing electric service. Environmental externality values are numerical costs or quantified values that are assigned to represent either:

1. Environmental costs that are not internalized in the cost of production or the market price of electricity from a particular electric resource; or

2. The alleged costs of complying with future environmental laws or regulations that have not yet been enacted.

49-02-24. Renewable electricity and recycled energy credit trading and tracking system. Notwithstanding any other provision of law, the commission by rule may establish or participate in a program to track, record, and verify the trading of credits for electricity generated from renewable and recycled heat sources among electric generators, utilities, and other interested entities within this state and with similar entities in other states. This section applies to all public utilities, electric cooperatives, and municipal electric utilities.

49-02-25. Renewable electricity and recycled energy defined. As used in section 49-02-24, renewable electricity and recycled energy include electricity generated from facilities using the following sources:

CHAPTER 49-06
VALUATION OF PUBLIC UTILITY PROPERTY

49-06-01. Valuation of property as basis for determining reasonableness of rates. The commission, for the purpose of ascertaining just and reasonable rates and charges of public utilities, or for any other purpose authorized by law, shall investigate and determine the value of the property of every public utility, except railroads and motor carriers, used and useful for the service and convenience of the public, excluding therefrom the value of any franchise or right to own, operate, or enjoy the same in excess of the amount, exclusive of any tax or annual charge, actually paid to any political subdivision of the state as a consideration for the grant of the franchise or right, and exclusive of any value of the right by reason of a monopoly or merger. The commission shall prescribe the details of the inventory of the property of each public utility to be valued.

49-06-02. Value of property for ratemaking purposes - Determination. The value of the property of a public utility, as determined by the commission for ratemaking purposes, is the money honestly and prudently invested therein by the utility including construction work in progress for new facilities that use lignite mined in this state to generate electricity, as well as additions or modifications to existing lignite facilities, less accrued depreciation. The commission shall allow a public utility for those new or existing facilities utilizing lignite mined in this state as its primary fuel:

1. To recover its research and development costs incurred to develop lignite more cleanly, efficiently, or economically, including a reasonable rate of return on capital expenditures;

2. To recover its incremental costs of complying with federal environmental laws, including a reasonable rate of return on capital expenditures. The commission may allow these costs to be recovered by an environmental surcharge that may be added to existing rates; and

3. To recover all costs resulting from a coal severance tax pursuant to chapter 57-61 and all costs resulting from a coal conversion tax pursuant to chapter 57-60. The commission shall allow the inclusion of these costs in the base rates and the inclusion in the automatic adjustment clause of any of these costs not in base rates.

49-06-03. Value of goodwill not to be considered in ratemaking. The value of public utility property for ratemaking purposes shall not include or be affected by goodwill value, going concern value, or franchise value in excess of payments made therefor.

49-06-04. Fair market price to be allowed in fixing valuations. The commission, in determining the rates to be charged by any utility under its jurisdiction, shall ascertain whether an advanced or fictitious cost price, or a price in excess of the fair market value of any commodity, machinery, equipment, material, or service has been paid or is being paid or charged, by the public utility. If it shall appear that any such fictitious or advanced price has been or is being paid or charged, the commission shall fix and allow as a part of the valuation or rate basis only the reasonable and fair market price of such items, at the time of the purchase, eliminating all such fictitious or excessive prices or values.

49-06-05. When valuation or revaluation required. The commission, upon its own motion, may, and, upon a petition for a valuation or revaluation of the property of a public utility, including necessary audits, for the purpose of determining the rate to be charged for the service rendered, signed by twenty-five percent of the patrons or customers of such public utility, shall, endeavor to arrive at a reasonable rate through negotiations with the public utility. If within thirty days after the filing of the petition, or within thirty days after the adoption of an order or resolution by the commission on its own motion, they are unable to agree upon a new rate which shall be not less than fifteen percent less than the rate in force at the time of the filing of said petition, or the adoption of the order or resolution, the commission shall proceed with a valuation or

2. Ascertain the value of such extensions, improvements, and changes; and

3. Revise and correct, from time to time, its valuation of such property.

49-06-16. Additional hearings of commission. The commission from time to time may cause any further hearing and investigation to be had for the purpose of making a revaluation or ascertaining the value of any betterments, improvements, additions, or extensions made by a public utility subsequent to any hearing or investigation, and may examine into all matters which may change, modify, or affect any findings of fact previously made and at such time may make findings of fact supplementary to those theretofore made. Such a hearing shall be had upon the same notice and shall be conducted in the same manner as an original hearing. Any supplementary finding shall have the same force and effect as an original finding, and shall be considered in connection with the original findings and, so far as may be necessary, as a modification thereof.

49-06-17. Limitation on number of valuation or revaluation orders. No order for valuation or revaluation shall be made more than once in every three years after a determination of value has become final. This limitation, however, shall not apply to proceedings to determine past excess earnings for refunding purposes.

49-06-18. Employment of experts - Attorneys - Costs of hearing. Repealed by S.L. 1993, ch. 1, § 35.

49-06-19. Additional costs to be paid - Refund. Repealed by S.L. 1993, ch. 1, § 35.

49-06-20. Amount not paid to draw interest - Attorney general to collect. Repealed by S.L. 1993, ch. 1, § 35.

49-06-21. Writs of attachment and garnishment summons to be issued. Repealed by S.L. 1993, ch. 1, § 35.

49-06-22. Public utility valuation fund - Use. Repealed by S.L. 1993, ch. 1, § 35.

49-06-23. Expenses of valuation or revaluation paid into public utility valuation revolving fund. Repealed by S.L. 1993, ch. 1, § 35.

49-06-24. When electric rates not to be increased. The commission may not increase electric rates as a result of actions taken by other states requiring higher cost resources to be built, purchased, or otherwise acquired as a result of the application of quantified environmental externality values, as defined in section 49-02-23, as part of any resource selection process.

1/16/95

TESTIMONY OF JOHN W. DWYER
PRESIDENT, LIGNITE ENERGY COUNCIL
REGARDING
HB 1312

I. BACKGROUND

A. In 1993, the Minnesota Legislature passed a law effective August 1, 1993, which required the Minnesota Public Utilities Commission (MNPUC) to "....

- "quantify and establish a range of environmental costs associated with each method of electricity generation"

- and required each utility to "use (these values) in conjunction with other external factors . . . when evaluating resource options in all proceedings before the Commission."

B. What are Externalities?

1. EXTERNALITIES are generally defined as those costs or benefits resulting from an economic activity that are not directly reflected in market prices for the goods or services produced by the activity. Such costs or benefits are thus "external" to the market transaction. For the most part, utility commissions who have examined externalities only focus on the negative "cost" aspect of externality theory.

2. What are some examples? What is and what is not an externality cost?

   a. Coal costs (equipment, taxes, regulatory costs, employee costs) are internalized in the price of energy so it is not an externality cost. Rather, coal costs are internal costs. But the benefits of a lignite industry - the indirect jobs and indirect economic activity it creates are not directly credited to the cost of your electricity, so it is an example of an externality benefit.

B. What are Externalities (cont.)

b. Air pollution control equipment is internalized in the price of energy so it is not an externality cost. But residual health impacts (if there are any) from emissions of pollutants on the citizens of Jamestown, Fargo, or Grand Forks would be an example of an externality cost that is not reflected in the cost of your electricity.

c. Carbon dioxide emissions, which occur when you burn any fossil fuel (coal, oil, natural gas, wood, etc.), are not controlled, because they are not classified as a pollutant. In fact, many leading scientists contend CO_2 emissions, which are a key ingredient of life as we know it, are beneficial and necessary and that increased CO_2 emissions are good, not bad.

However, if you believe there is a cost associated with CO_2 emissions from lignite - such as global warming - then the approach the environmentalists have chosen to attack CO_2 emissions is to impose externality costs on coal-fired electricity for its CO_2 emissions, because CO_2 emissions are not now internalized in the cost of energy.

C. What has MNPUC done to implement its statute?

1. On March 1, 1994, the MNPUC issued an interim order in writing that established an interim value for Carbon Dioxide (CO_2) of $5.99 to $13.60 per ton for coal-fired electricity.

2. In its order, the MNPUC indicated that the use of externality values must be used in the evaluation and selection of resource options "in all proceedings before the Commission, including resource plan and certificate of need proceedings." Furthermore, the use of externality values is mandatory in the selection of new resources, which replace or supplement existing facilities.

II. WHAT DOES THIS MEAN FOR NORTH DAKOTA'S LIGNITE RESOURCE?

A. Minnesota is 50 percent of present lignite market and is where most future growth will occur.

B. Additional cost added to lignite from CO_2 externality cost alone is about $8.50 to $19.35 per ton. This doubles or triples the present cost of lignite.

- Each ton of lignite generates about 1.4 tons of CO_2 when burned (based on carbon content of lignite).
- Lignite has higher carbon content than other fossil fuels.

C. How does application of externality value actually work? (Exhibits 1 & 2 attached)

D. What happens to lignite resource?

1. Would make lignite non-competitive as resource which replaces or supplements existing facilities.

2. Would make lignite non-competitive as resource for future facilities (additional units, clean coal projects, etc.).

3. May limit new firm power sales of lignite capacity between utilities (3/1/94 and later).

4. Planning process of utilities and cooperatives will begin to limit lignite as viable resource alternative (will be reflected in integrated resource plans filed by utilities and cooperatives after 3/1/94).

5. Will set detrimental precedent that could be followed in other lignite markets (South Dakota, Montana, etc.) by regulatory authorities.

6. Artificially raises price of lignite energy to consumers (industrial & residential) and makes our products non-competitive.

III. WHAT HAS NORTH DAKOTA DONE ABOUT MINNESOTA'S EXTERNALITY COST ON LIGNITE?

A. State of North Dakota (through Governor, Attorney General and Agricultural Commissioner - Industrial Commission) and the lignite industry have joined together and intervened in this case to fight the injustice of externality costs on lignite energy.

B. We are contending that:

1. CO_2 externality costs on lignite energy lack scientific basis.

2. CO_2 externality costs on lignite energy are not appropriate because there is no damage to Minnesota and such regulation is beyond police power of State of Minnesota.

3. CO_2 externality costs on lignite energy place a burden on interstate commerce.

IV. WHAT DOES HB 1312 DO?

A. Prevents North Dakota Public Service Commission from passing on to North Dakota consumers externality costs imposed by other states.

B. Sends strong message to Minnesota and other states that State of North Dakota is not going to let other states strangle our lignite industry which provides 18,000 jobs, over $60 million in annual tax revenue, and $1.4 billion in business volume for our state.

C. Protects North Dakota consumers from unreasonable, speculative, and artificial externality costs imposed by other states.

V. LIGNITE ENERGY COUNCIL AND ITS MEMBERS - our producers (Coteau, Falkirk, BNI, Knife River); our utility members (MDU and Otter Tail Power), our cooperative members (Basin Electric, Cooperative Power, United Power Association and Minnkota Power), and its 200 contractor/supplier members urge a DO PASS on HB 1312.

Excerpts from "Environmental Economics "by Joseph Seneca and Michael Taussig, Used as a textbook for the graduate level "Energy and Environmental Economics class at the University of North Dakota during the 1970's.

"Chapter 3 extends the elementary theory presented in this chapter by reconsidering the concept of efficiency in a more realistic, sadly familiar world in which the environmental problems of society, such as air and water pollution, are not satisfactorily resolved by an otherwise ideal private market system. These problems are traced to economic factors operating outside the market system, which we term EXTERNALITIES." (pp25 & 26).

"THE CONCEPT OF EXTERNALITIES"

Economists have long recognized that the private market system often produces undesirable spillage effects on man's environments. Typical and too familiar examples of such spillover effects are the noxious smoke and polluted water emissions of modern industrial plants. In such circumstances, the technical nature of the production process generates an output effect distinct from the final marketed product of the firm. The spillage effects of modern industrial production result in deteriorating environmental quality, an output that the firm does not, and, of course, could not sell. On the contrary, households and other firms affected by the pollutant spillages experience real opportunity costs in many different forms and would be willing to pay varying amounts if they could effectively end or lessen the firm's polluting activities.

We define any costs that are additional to the costs resulting from the production outlays of the firm as EXTERNAL, or spillover, costs.. Total social costs(social costs, for brevity) are defined as the sum of the private costs of the firm and any external costs. The use of the word EXTERNAL implies that some costs do not accrue to the firm that produces the good, but are imposed on all society or, at least, on a subset of households or firms in a society. Such costs are outside the market system and are not reflected in relative market prices.

Examples of external costs are easy to find in any modern industrial economy. The paper firm that pollutes a river and destroys the game fish population imposes external costs on fishermen, boaters, and swimmers; so does the chemical plant that plagues the local economy with constant stenches. The residential developer who denudes the landscape and constructs row on row of similarly built homes may impose psychic costs on many individuals by affronting their esthetic sensitivities. The individual who misses a number of work days each year due to illnesses caused by impure air bears a personal external cost, equal to his lost wages. Society, which loses the workers production for the work days lost bears an additional external cost, equal to the net difference between the workers average product and his wages over the relevant time period. Even the charcoal cookout of the suburbanite that soils his neighbor's drying laundry involves a (perhaps) small external cost. The common theme in all of these hypothetical situations is that firms or households other than those responsible for the

initial act of production or consumption suffer uncompensated monetary or psychic costs.

At the same time, the general term EXTERNALITIES suggests that it is possible for the production or consumption of some commodities to bestow spillover benefits on fortunate firms and households not immediately involved in the actual production or consumption process. The recipients of such external benefits are not charged the monetary value of these benefits. No markets exist that enable the producers of the spillover benefits to exclude potential beneficiaries from consuming the spillovers if they fail to pay the market price. For example, health immunization services provide benefits to all of society in addition to the individual consumer in the form of better protection from contagious diseases. Similarly, everybody in the neighborhood benefits from the beauty of a well designed building, and these benefits are all supplementary to the benefits derived from the owner of the building himself. Because this book is concerned mainly with problems of environmental pollution, our main focus will be on those externalities that have negative spillover effects; that is, external diseconomies. We shall note later, however, that the economic welfare implications of external economies are logically symmetric to those of external diseconomies." (pp 49 & 50).

CORRECTED TESTIMONY ON HOUSE BILL 1312

Presented by: William W. Binek
Chief Counsel, Public Service Commission

Before: House, Industry, Business and Labor Committee

Date January 16, 1995

Mr. Chairman and members of the committee. My name is William Binek and I am Chief Counsel for the North Dakota Public Service Commission. The Commission has asked me to testify in support of House Bill 1312.

"Environmental externality" is a term used to define the assessment of an artificial cost that is arbitrarily assessed as a cost against different types of electric generating facilities. The primary focus of the proponents of this artificial cost is the elimination of coal as a fuel to be used for generation of electricity.

The Commission has taken a proactive role in the fight against the imposition of environmental externality costs. The Commission is providing technical assistance to the Attorney General and the North Dakota Lignite Energy Council in their challenge of the legislation enacted in Minnesota which requires the Minnesota Public Utilities Commission establish environmental costs for CO_2 emissions. The Commission has also aggressively opposed the assessment of environmental penalties against coal fired generating facilities in Northern States Power Company's generic competitive bidding procedure before the Minnesota Public Utilities Commission.

The proposed legislation provides an important tool in the fight against the imposition of environmental externality costs targeted against North Dakota's Lignite

industry. Furthermore, this legislation protects North Dakota's electric ratepayers from artificially increased costs of electricity caused by self-serving and arbitrary actions of other states in the application of externality costs. The Commission realizes that passage of this legislation may adversely affect some utilities, but the interests of North Dakota ratepayers and taxpayers must be protected.

SETTLEMENT AGREEMENT
BIG STONE PROJECT
AUGUST 31, 2007

SUMMARY OF TERMS

This document summarizes the terms of a Settlement Agreement entered into by the Minnesota Department of Commerce and the Big Stone Partners in the Certificate of Need proceeding before the Minnesota Public Utilities Commission.

Background Section – describes the BSII transmission and generation projects, describes that the MPUC's jurisdiction is limited to the transmission project, and provides a list of reasons why the settlement agreement is in the public interest, including the reasons why the plant is needed.

Section 1 – Jurisdiction and Parties - describes the parties to the Settlement Agreement and the jurisdiction of the Public Utilities Commission.

Section 2 – Recommendation – states that the Agreement satisfies the Department's concerns expressed in the proceeding regarding the applicable Certificate of Need criteria, and that the parties jointly recommend approval of the transmission project CON and route permits.

Section 3 – Facilities' Cost and Cost Recovery – provides, among other things, information on the estimated capital cost of the transmission ($109.8M in 2006 dollars) and Big Stone Unit II ($1.4B based on 2012 COD), that the commitments made or to be made by the owners with respect to the proposed high voltage transmission lines, Big Stone Unit II, for expenditures as a result of carbon dioxide emission offsets (section 4.0), mercury (section 5.0), Renewable Energy Standard and Community Based Energy Development ("CBED") (Section 7.0), and for all commitments attributable to the Settlement Agreement, are made with the expectation that OTP and MDU will obtain cost recovery of all reasonable and prudent costs from all state public utilities' commissions having jurisdiction.

Section 4 – Carbon Dioxide Emissions – provides that the BSII Owners with load in Minnesota will offset 100% of Minnesota CO_2 emissions through a number of different options, including:

- carbon capture and sequestration;
- emission reductions and efficiency improvements in the owner/operators' systems;
- carbon trading on a recognized exchange;
- purchases of carbon credits from a credible offset operation;
- setting aside funds in a separate account on the Owners' books based on a price of $10.0 per ton of CO_2;
- making investment in transmission that enhances renewable energy development beyond that which would have otherwise occurred. Within two years of approval of the CON, the Minnesota owners will file with the MPUC a proposed method for calculating the offset method (e.g., as a percentage of revenue requirements);
- adding renewables or investment in efficiencies beyond that required by law;

EXHIBIT
A

- achieving energy efficiency savings beyond amounts required by law; or
- any other offset method that results in "permanent quantifiable, verifiable, and enforceable" GHG reductions. The Minnesota Owners will not be required to offset GHG emissions under both a Minnesota and federal GHG program at the same time.

Also provides that use of the funds will be restricted to carbon offsets or research. Provides that the offset requirement will terminate upon the earlier of (1) the effective date of a Minnesota or federal GHG program designed to reduce GHG emissions, or (2) four years after the commercial operation date of Big Stone Unit II if a Minnesota or federal GHG program has not been adopted and implemented by that date.

Section 5 – Mercury – the owners agree to install equipment to control emissions of mercury from both Unit I and Unit II such that the control equipment is equivalent to what is required of certain large generating facilities in Minnesota (*i.e.*, Allen S. King, Sherco, and Clay Boswell) under the Minnesota Mercury Emission Reduction Act (i.e., the technology most likely to result in removal of at least 90% mercury removal), within four years from the commercial operation date of Big Stone Unit II.

Section 6 – Big Stone Lake - the owners agree to perform tests on the groundwater supply to evaluate its production and impacts relative to the modeling conducted pursuant to the groundwater permit. Should the finding of the tests differ materially from the model results, the SD Water Management Board will have the opportunity to reconsider the conditions to of the groundwater permit. Recognizes that long-term management of the lake is best done through state collaboration (SD/MN), and owners agree to participate in SD/MN meetings when asked.

Section 7 – Renewables – the Minnesota owners commit to own or procure 24% of their Minnesota Renewable Energy Standard (RES) obligations for the year 2012 via Community-Based Energy Development (C-BED) projects, subject to commercially reasonable terms (including price). This commitment will be fulfilled no later than four years after the Big Stone Unit II Commercial Operation Date (COD). The Minnesota owners will also take reasonable steps to identify additional C-BED projects which could help them meet their RES obligations.

Section 8 – Conservation – the owners with load in Minnesota will file a report by June 1, 2008 that describes how each utility intends to meet its new RES obligations. SMMPA, CMMPA, HCPD, and GRE agree to strive to aggregate the DSM filings of their Minnesota members. The owners who have established electric water heater incentives that are not part of a DSM program will terminate such programs by July 1, 2008, and the owners will work in good faith with any of their Minnesota members who also have such programs to eliminate the programs by July 1, 2010.

Section 9 – Miscellaneous – among the noteworthy provisions here are: that the Agreement creates no binding precedent; that the Agreement is null and void if the MPUC imposes undue conditions or otherwise changes materially its terms; or does not approve the Route Permits; or if for any reason Big Stone II is not constructed. The commitments are binding so long as a partner is an owner of the project or otherwise committed to it; no partner is responsible for the obligations of any other individual owner/partner.

Agreed to by the following Parties:

Edward A. Garvey Dated 8/30/07

Minnesota Department of Commerce
Edward A. Garvey
Deputy Commissioner – Energy and
Telecommunications Division

_____ Dated _____

Otter Tail Power Company
Chuck MacFarlane
President

_____ Dated _____

Great River Energy
David Saggau
Chief Executive Officer

_____ Dated _____

Missouri River Energy Services
Thomas J. Heller
Chief Executive Officer

_____ Dated _____

Southern Minnesota Municipal Power Agency
Ray Hayward
Chief Executive Officer

_____ Dated _____

Central Minnesota Municipal Power Agency
Robert Elston
President

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Heartland Consumers Power District
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Missouri River Energy Services
Thomas J. Heller
Chief Executive Officer

MRES Legal Department
Approved: TJH Date: 8/30/07

_____ Dated _____
Southern Minnesota Municipal Power Agency
Ray Hayward
Chief Executive Officer

_____ Dated _____
Central Minnesota Municipal Power Agency
Robert Elston
President

_____ Dated _____
Heartland Consumers Power District
Mike McDowell
Chief Executive Officer

_____ Dated _____
Montana-Dakota Utilities Co.
Bruce Imsdahl
Chief Executive Officer

Agreed to by the following Parties:

_____ Dated _____
Minnesota Department of Commerce
Edward A. Garvey
Deputy Commissioner – Energy and
Telecommunications Division

_____ Dated _____
Otter Tail Power Company
Chuck MacFarlane
President

_____ Dated _____
Great River Energy
David Saggau
Chief Executive Officer

_____ Dated _____
Missouri River Energy Services
Thomas J. Heller
Chief Executive Officer

Raymond M. Hayward Dated 8/30/07
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Central Minnesota Municipal Power Agency
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_____ Dated _____
Central Minnesota Municipal Power Agency
Robert Elston
President

Mike McDowell Dated 9/30/2007
Heartland Consumers Power District
Mike McDowell
Chief Executive Officer

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_____ Dated _____
Central Minnesota Municipal Power Agency
Robert Elston
President

_____ Dated _____
Heartland Consumers Power District
Mike McDowell
Chief Executive Officer

Bruce Imsdahl Dated 08/30/07
Montana-Dakota Utilities Co.
Bruce Imsdahl
Chief Executive Officer

Attachment #1

House Natural Resources Committee
SCR4015-March 13, 2009
Senator Tim Mathern

Chairman Porter and Members of the Natural Resources Committee

My name is Tim Mathern. I am a Fargo Senator and I am here to introduce SCR 4015. This resolution has changed dramatically from

"studying ND Century Code Section 49-02-23 which expressly forbids the Public Service Commission from considering the potential cost impact of future carbon regulation and other environmental externalities on North Dakota ratepayers"

To

"Directing the Industrial Commission to conduct a study of the economic impacts of proposed federal, regional, and state carbon cap and trade systems, including the Minnesota Next Generation Energy Act of 2007"

Ladies and gentlemen I originally brought this resolution to the Senate because of what appeared to me as our unwillingness to prepare for the day when externality costs would be considered. Then North Dakota might be in a real pickle in dealing with it. It seemed our law is a bit like me going to see my doctor about high blood pressure but telling him up front that he could not use the word salt.

As you can imagine the coal industry was opposed to the resolution but to their credit did come up with a hog house amendment that they brought to the Senate Natural Resources Committee. They passed it by a unanimous vote. The original version is here attached.

On the surface the new resolution is quite different and might not be acceptable to the original people asking me to introduce the resolution. However I think it does begin to address the reality of the situation we are finding ourselves in, especially with Minnesota.

I ask that you give the resolution a do pass. I believe it provides a vehicle for the coal energy supporters and coal energy detractors to continue communication which will benefit North Dakotans as a whole.

Ladies and gentlemen there are people who know more than I about this topic and I ask that you give them your attention.

Thank you.

Attachment #2

Testimony on Engrossed SCR 4015
House Natural Resource Committee

Presented by: Sandi Tabor
Lignite Energy Council

March 13, 2009

SCR 4015 calls for the ND Industrial Commission to conduct a study of the economic impact of proposed federal, regional and state carbon dioxide cap and trade systems, including the Minnesota Next Generation Energy Act of 2007. The study will provide valuable information and statistics for the state of North Dakota to reference as it designs strategies to educate leaders in Minnesota about the impact of legislation they plan to enact or have enacted. The study will also provide economic impact information which will be shared with our congressional delegation for their use as they determine how to address climate change legislation at the national level. The bill calls for the Industrial Commission to conduct the study because the NDIC has access to special funds which may be used for such studies.

The Lignite Energy Council encourages the committee to support SCR 4015 with a "do pass" recommendation.

Attachment #3

Dakota Resource Council
"Organizing North Dakotans Since 1978"
P.O. Box 1095— Dickinson, ND— 58602-1095
701-483-2851
www.drcinfo.com

Testimony in opposition of Engrossed SCR 4015
House Natural Resources Committee
March 13, 2009

Chairman Porter and Committee Members,

Dakota Resource Council urged passage of SCR 4015 in its original form as a way to examine the impacts of North Dakota Century Code Section 49-02-23 (the so-called "externalities law") on North Dakota electricity ratepayers. This section of the Century Code prohibits the Public Service Commission from making certain types of predictions with regard to future electricity costs, in particular the cost of regulating carbon dioxide. Notably, it does not prevent the PSC from making predictions on the future price of fuel, building materials, rail rates or many other changeable costs that have an impact on the price of electricity.

It is now more likely than ever before that Congress will act soon to regulate carbon dioxide emissions. It seems impossible that Congress should fail to do so during the life span of a coal-fired power plant, which may be greater than 50 years. The likely possibility of carbon dioxide regulations early in the life of a new coal-fired power plant will make a significant difference in the price electricity ratepayers will have to pay over the lifetime of the plant. It may even be the most important cost consideration. Yet state law prohibits the Public Service Commission from considering it.

Studying the impact of this law on electricity ratepayers was the intent of this resolution. Virtually everyone in the state is an electricity ratepayer. It is hard to imagine a more general interest. In its engrossment, however, the resolution has shifted its focus from a general interest to a special interest and we cannot support the engrossed version of this Bill.

Respectfully Submitted,

Mary

Mary Mitchell
Dakota Resource Council