Minnesota Center for
Environmental Advocacy

The legal and scientific voice protecting and defending Minnesota's environment

26 East Exchange Street - Suite 206
Saint Paul, MN 55101-1667

651.223.5969
651.223.5967 fax

mcea@mncenter.org
www.mncenter.org

April 26, 2007

VIA U.S. MAIL

Christopher W. Madsen
Thomas J. Welk
Boyce Greenfield Pashby & Welk LLP
PO Box 5015
Sioux Falls, SD 57117-5015

John J. Smith
S.D. Public Utilities
Commission
500 East Capitol Ave.
Pierre, SD 57501

Re: In the Matter of Otter Tail Power Company on Behalf of Big Stone II Co-owners for an Energy Conversion Facility Permit for the Construction of the Big Stone II Project
Supreme Court File 24485
Circuit Court Civ. No. 06-399

Dear Messrs. Madsen, Welk and Smith:

Enclosed and served upon you, please find 2 copies of the Brief of AppellantMinnesota Center for Environmental Advocacy and an Affidavit of Service by Mail.

If you have any questions, please do not hesitate to call me.

Sincerely,

Janette K. Brimmer
John H. Davidson

State of South Dakota

In the Supreme Court

No. 24485

In the Matter of Otter Tail Power Company on behalf of Big Stone II Co-owners for an Energy Conversion Facility Permit for the Construction of the Big Stone II Project

Minnesota Center for Environmental Advocacy, Izaak Walton League of America – Midwest Office, Fresh Energy, and Union of Concerned Scientists,

Appellants,

vs.

South Dakota Public Utilities Commission and Otter Tail Power Company on behalf of Big Stone II Co-owners,

Appellees.

Appeal from the Circuit Court for Hughes County
Sixth Judicial Circuit, Case No. CIV 06-399
The Honorable Lori S. Wilbur, Circuit Court Judge
Date of Judgment: February 27, 2007

APPELLANTS' BRIEF

Janette K. Brimmer
MINNESOTA CENTER FOR ENVIRONMENTAL ADVOCACY
26 East Exchange Street, Suite 206
St. Paul, MN 55101-1667
Tel: (651) 223-5969
Fax: (651) 223-5967

John H. Davidson
School of Law
University of South Dakota
213 Law Building
414 East Clark Street
Vermillion, SD 57069-2390
Tel: (605) 677-6341
Fax: (605) 677-5417

Attorneys for Appellants
(Counsel for Appellees listed on following page)

DATE OF FILING OF NOTICE OF APPEAL: MARCH 27, 2007

2007 – BACHMAN LEGAL PRINTING – FAX (612) 337-8053 – PHONE (612) 339-9518 or 1-800-715-3582

John Smith
South Dakota Public Utilities
Commission
500 East Capitol
Pierre, SD 57501
Tel: (605) 773-3201
Fax: (605) 773-3809

Attorney for Appellee
South Dakota Public Utilities Commission

Christopher W. Madsen
Thomas J. Welk
BOYCE GREENFIELD PASHBY
& WELK, LLP
P.O. Box 5015
Sioux Falls, SD 57117-5015
Tel: (605) 336-2424
Fax: (605) 334-0618

Attorneys for Appellee
Big Stone II Co-Owners

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page

South Dakota State Cases

State Statutes

State Rules

Other Sources

STATEMENT OF JURISDICTION

This matter comes before the Court on appeal by the Minnesota Center for Environmental Advocacy, Fresh Energy (f/k/a Minnesotans for an Energy-Efficient Economy), Izaak Walton League of America – Midwest Office, and the Union of Concerned Scientists (collectively "Appellants") of the order of the Hughes County Circuit Court dated February 27, 2007, affirming the decision of the South Dakota Public Utilities Commission ("PUC") to grant a permit to site the 600 megawatt ("MW") Big Stone II coal-fired power plant ("Big Stone II"). (Appellants' Appendix, p. 1, hereinafter "App.") Appellants commenced this appeal on March 26, 2007. (App. 2.)

STATEMENT OF ISSUE

Issue: Was the PUC's decision and the subsequent circuit court's order affirming that decision, to grant Big Stone II a permit under SDCL § 49-41B-22 (2006), in error as contrary to the clear language of the power plant siting statute and based upon improper considerations under that statute?

Circuit Court decision: The PUC's decision was proper and within the PUC's discretion under the power plant siting statute, SDCL § 49-41B-22 (2006).

Most apposite cases or statutes: SDCL § 49-41B-22 (2006); *In the Matter of Petition of West River Electric Ass'n. Inc.,* 675 N.W.2d 222, 2004 SD 11 (S.D. 2004); *In the Matter of Northwestern Public Service Company,* 560 N.W.2d 925, 1997 SD 35 (S.D. 1997).

Issue: Was the PUC's decision and the circuit court's order affirming that decision, to grant Big Stone II a permit under SDCL § 49-41B-22 (2006), clearly erroneous in light of the evidence as a whole?

Circuit Court decision: The PUC's decision was within the bounds of PUC's discretion and not clearly erroneous.

Most apposite cases or statutes: SDCL § 49-41B-22 (2006); *Schroeder v. Dept. of Social Services,* 545 N.W.2d 223, 1996 SD 34 (S.D. 1996).

STATEMENT OF CASE

Otter Tail Power Company and the Big Stone II Co-Owners (collectively the "Coal Plant Proposers") filed their application for a site permit on July 21, 2005. (R. 1-435.) By order dated October 4, 2005, the PUC allowed Appellants to participate as intervenors. (R. 669-670.) The permit came before the PUC for hearing on June 26 through 29, 2006. (R. 3800-8058.) The PUC issued its findings and decision approving the Big Stone II permit on July 21, 2006. (R. 8286 et seq.; App. 7 et seq.) One party requested rehearing and/or reconsideration. (R. 8326-8333; 8341-8348; 8358-8362.) On August 24, 2006, the PUC issued its final findings and order, denying rehearing and approving the Big Stone II permit. (R. 8372.) Appellants filed their initial appeal on September 21, 2006, and by order dated February 27, 2007, Hughes County Circuit Court, Honorable Lori S. Wilbur presiding, affirmed the decision of the PUC. (App. 1 and 4-6.) Appellants filed this appeal on March 26, 2007. (App. 2.)

STATEMENT OF FACTS

The Coal Plant Proposers seek to site a new 600 MW pulverized coal plant on the eastern border of South Dakota. (R. 1, et seq.) The Coal Plant Proposers represent seven different utilities serving North Dakota, Minnesota, and Iowa, as well as South Dakota. Two of the utilities, who together propose to own about 40% of Big Stone II's output, are investor-owned utilities whose South Dakota retail sales are subject to rate regulation by

the PUC. The others are cooperative and municipal utilities, some of which provide power in South Dakota but which are not rate-regulated. (R. 8288-8289.)

According to the Coal Plant Proposers, Big Stone II will emit approximately 4.7 million tons of carbon dioxide ("CO_2") per year. (R. 4660.) The cause of global warming is buildup in the atmosphere of heat trapping gases, known as "greenhouse gases," due to human activity. (R. 7215.) CO_2, a heat-trapping gas of concern, is emitted when we burn fossil fuels, especially coal because it has such a high carbon content. (R. 7216.) Every year, Big Stone II will emit the equivalent global warming pollution of nearly 670,000 cars, roughly two-thirds more than the CO_2 emissions of all the cars in South Dakota combined. (R. 7238.) Big Stone II increases CO_2 emissions of the entire state of South Dakota by 34%, and more than doubles current emissions from the state's power sector (currently 3.79 million tons). *Id.*

Appellants, non-profit environmental organizations, opposed the Big Stone II permit on a number of grounds, including that Big Stone II would pose a threat of serious injury to the environment due to its large contribution of CO_2 pollution to the problem of global warming. Appellants presented testimony from Ezra Hausman, Ph.D., an expert on global warming with Synapse Energy Economics, Inc.[1] Dr. Hausman holds a Ph.D. in Atmospheric Science from Harvard University as well as master's degrees in Applied Physics from Harvard University and in Water Resource Engineering from Tufts University. (R. 7212.) Dr. Hausman has:

---

[1] Synapse Energy is a research-consulting firm specializing in energy and environmental issues, including electric generation, transmission and distribution system reliability, electricity market prices, efficiency, renewable energy, and environmental quality. Its clients are widely varied including consumer advocates, public utilities commission staff (including on occasion, South Dakota PUC staff), attorneys general, environmental organizations, federal government, and utilities. (R. 7089.)

-built a dynamic computer model of the ocean-atmosphere system to explore how observed ocean changes at the end of the last ice-age can be used to explain certain aspects of the warming planet;

-worked with researchers at Columbia University on private sector application of climate forecast science, leading to an initiative called the Global Risk Prediction Network, Inc. for which he served as Vice President in 1997 and 1998;

-as part of the Global Risk Prediction Network, Inc., worked on projects including serving as principal investigator for a statistical assessment of grain yield predictability in several crop regions around the world based on global climate indicators;

-prepared a preliminary design of a climate and climate forecast information website tailored to the interests of the business community.

(R. 7213 and 7244-7248.)

Humans have increased background levels of CO_2 by roughly one-third above pre-industrial levels, considerably higher than it has been in 400,000 years (over four ice-age cycles), and probably higher than in tens of millions of years. (R. 7224-7225.) The early predicted effects of human-induced climate change are already observable, documented in the scientific literature, and consistent with computer models. (R. 7214.) The global average earth surface temperature rose by 0.6° C over the twentieth century, with additional record-breaking warming in the first few years of the twenty-first century; four of the five hottest years on record have occurred since 2000, with the 10 hottest years since 1990. (R. 7226-7228.) This warming is consistent with predictions by computer models of the climate response to today's elevated CO_2 concentrations. (R. 7228.) The Intergovernmental Panel on Climate Change ("IPCC") predicts warming in the twenty-first century will be from 1.5 to 5.8° C – or 2.5 to 9.7 times greater than in the past century. *Id.* To put this in geo-historical context, the average surface temperature differential between the last ice age and today was only about 5° C. (R. 7229.)

The scientific academies of 11 nations, including the National Academy of Sciences in the U.S.,[2] recently issued a joint statement urging all nations "to acknowledge that the threat of climate change is clear and increasing" and to "take prompt action to reduce the causes of climate change." (R. 7286 et seq.) They call it "vital" to take immediate steps to reduce CO_2 emissions now. (R. 7286 et seq.) Dr. Hausman notes the scientific consensus that aggressive *reductions* from current levels of CO_2, *not increases*, must begin immediately if the most environmentally-damaging effects of global warming are to be avoided. (R. 7214.) Models demonstrate that we can still avoid the most dangerous impacts *by limiting the further buildup of CO_2 in the atmosphere. Id.* Even with current levels of fossil fuel use, CO_2 levels will continue rising steeply, increasing the likelihood of the most dangerous or even catastrophic warming. (R. 7225.)

Dr. Hausman testified that if climate trends continue, global warming is "likely to bring about a climate well outside the range of anything ever experienced by our species, with the potential for severe and irreversible changes that will forever alter our environment, our economies and our way of life." *Id.* The impact of increased CO_2 in the atmosphere is not just measured in terms of a few warm days, "but in disruptions in the very characteristics of climate that define our lives and our livelihoods." (R. 7216.) Dr. Hausman warns of an "extraordinary risk associated with pushing the climate system to where it has never gone in over 400,000 years, and probably tens of millions of years." (R. 7225.) "Human societies and ecosystems will find themselves poorly adapted to their local climate and this will result in disruption and dislocation of ecosystems...and

[2] The National Academy of Sciences has approximately 2000 members and 350 foreign associates, of whom *more than 200 have won Nobel Prizes*. (R. 7220.)

disruptions in agriculture." (R. 7222.) Among the serious negative impacts associated with this predicted warming are rising sea levels, damaged or lost ecosystems, greater species extinction, expansion of disease and pest vectors, greater heat waves, more intense precipitation causing more flooding, landslides and erosion, and in continental interiors like South Dakota, increased summer drying causing more droughts,[3] reduced crop yields, and reduced water availability and quality. *Id.* The more CO_2 emitted, the more severe the impacts are likely to be. *Id.* There is reason to worry that the warming ahead will not be gradual, given evidence that in the past the earth has often made climate changes in "abrupt, lurching fashion," which would be even more disruptive than linear warming. (R. 7230.)

Dr. Hausman's conclusion reflects the consensus among the world's preeminent scientists, who have concluded that global warming is a serious threat meriting immediate attention by world policy makers. (R. 7217-7222.) He describes "unequivocal scientific consensus" on key aspects of climate change. (R. 7221.) The IPCC represents the world's leading researchers in the field of climate science, which panel was brought together to assess the science and advise the world's policymakers. (R. 7217-7222.) The IPCC finds the planet is currently experiencing unnatural warming, predicts much more serious warming ahead if current energy trends continue, and identifies a range of likely harmful consequences. (R. 7249 et seq.; 7269 et seq.)

---

[3] While this matter was before the PUC in the summer of 2006, South Dakota suffered its worst drought since the dust bowl era. Availability of water for Big Stone II's operations may be affected by drought. The PUC acknowledged this in its findings, noting that the plant may have to reduce or cease operations during times of drought. (R. 8302, ¶ 101.) This would obviously lead to serious consequences for customers. Conversely, if the plant did not diminish or cease operations during drought, it would exceed the amount of water allowed from Big Stone Lake under agreement with Minnesota. *Id.*

In South Dakota, global warming is predicted to result in decreased soil moisture likely to harm both crops and natural vegetation; greater morbidity and mortality from heat stress; increased summer drought; displacement of today's plant and animal species; more agricultural pests and diseases; and increased storm intensity, causing greater flooding, erosion, and water pollution. (R. 7232-7233.) Dr. Hausman describes likely harm to agriculture and natural vegetation in the region. *Id.* The Prairie Pothole Ecological Region in eastern Dakotas and western Minnesota, is particularly vulnerable to climate warming, with prairie pothole wetlands in the region diminished or eliminated by drier conditions, threatening ducks and other migratory waterfowl for which the region is a critical breeding ground. (R. 7234-7235.) Global warming from increased CO_2 is likely to be economically and socially disruptive to South Dakota. (R. 7233.)

The Coal Plant Proposers did not dispute the evidence of CO_2 negative environmental and economic impacts, nor did the Coal Plant Proposers dispute the amount of CO_2 that Big Stone II would contribute to the global warming problem, waiving the right to cross examine Dr. Hausman. Rather, the Coal Plant Proposers' position regarding global warming and CO_2 has been that Big Stone II's huge increased contribution of 4.7 million tons of CO_2 to the global warming problem annually appears small when compared to all global sources. (R. 4660-4661.) In fact, Dr. Hausman characterizes Big Stone II's impacts as an enormous increase in South Dakota's global warming emissions and states "Big Stone II will exacerbate a problem that is likely to cause dramatic environmental and economic harm to societies around the globe, including to the communities in South Dakota." (R. 7214, 7238.) Dr. Hausmann points out that Big Stone II's contribution of CO_2 to global warming is considerable relative to

hundreds of millions of sources of greenhouse gases, many of which are as small as a single car. (R. 7214, 7238, 7564.) Large baseload coal plants are designed to operate for decades. (R. 7237.) Some of today's coal plants have been operating for 70 years. *Id.* The IPCC states that "several centuries after CO_2 emissions occur, about a quarter of the increased CO_2 concentration caused by these emissions is still present in the atmosphere." (R. 7265.) Assuming a conservative lifetime for Big Stone II of 50 years, the plant will emit over 225 million tons of CO_2 before it closes. *Id.* The CO_2 from Big Stone II will contribute to and move toward, not away from, serious environmental injury, continuing to warm the planet centuries after the plant closes its doors.

ARGUMENT

I. STANDARD OF REVIEW.

Under South Dakota law, a reviewing court will reverse an administrative agency decision when the substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions or decisions are affected by error of law, are clearly erroneous in light of the entire evidence in the record, or are arbitrary and capricious, or are characterized by abuse of discretion, or are clearly an unwarranted exercise of discretion. SDCL § 1-26-36 (2006); *In re One-time Special Underground Assessment by Northern States Power Company in Sioux Falls*, 628 N.W.2d 332, 334, 2001 SD 63, ¶ 8 (S.D. 2001). *See also, Wise v. Brooks Const. Services*, 721 N.W.2d 461, 466, 2006 SD 80, ¶ 16 (S.D. 2006); *Apland v. Butte County*, 716 N.W.2d 787, 791, 2006 SD 53, ¶ 14 (S.D. 2006).

This Court has clarified that the clearly erroneous standard is distinct from the substantial evidence standard (the old standard) in that a finding may be supported by

substantial evidence, but still be set aside by a reviewing court if clearly erroneous. *Sopko v. C & R Transfer Co., Inc.*, 575 N.W.2d 225, 229, 1998 SD 8, ¶ 7 (S.D. 1998). "On the deference spectrum, clearly erroneous fits somewhere between de novo (no deference) review and substantial evidence (considerable deference) review." *Id.*, (*quoting* 1 S. Childress & M. Davis, *Federal Standards of Review*, § 15.03 at 15-17 (2d ed. 1991)). The administrative agency's factual findings will be reviewed under the clearly erroneous standard, although findings based on deposition testimony and documentary evidence are reviewed de novo. *Wise*, 721 N.W. 2d at , 2006 SD 80, ¶ 16. Questions of law are reviewed de novo. *Id.*

Appellants argue that the PUC's decision must be reversed as it is affected by error of law and represents an unwarranted exercise of the PUC's discretion under the plain language of SDCL § 49-41B-22 (2006) (the "siting statute"). The PUC's decision limits or qualifies the application of the siting statute in a manner inconsistent with the statute's plain language. Therefore, the PUC's decision is legal error, contrary to the intent of the South Dakota legislature and outside the limits of the PUC's discretion. Such questions of law are reviewable de novo by this Court without deference to the PUC. *In the Matter of Northwestern Public Service Company*, 560 N.W.2d 925, 927, 1997 SD 35, ¶ 13 (S.D. 1997) (*citing Egemo v. Flores*, 470 N.W.2d 817 (S.D. 1991) and *Permann v. Dept. of Labor*, 411 N.W.2d 113 (S.D. 1987)).

Appellants also challenge the ultimate conclusion of the South Dakota PUC and the circuit court's affirmation of that conclusion, that the Big Stone II coal-fired power plant will not pose a threat of serious injury to the environment, as clearly erroneous based upon the record in its entirety. This application of the facts to the law for an

ultimate finding represents a mixed question of fact and law reviewable de novo. *Schroeder v. Dept. of Social Services,* 545 N.W.2d 223, 226, 1996 SD 34, ¶ 4 (S.D. 1996) (*citing Schuck v. John Morrell & Co.,* 529 N.W.2d 894, 896 (S.D. 1995)). In its fresh review of such mixed question, where, as here, it is necessarily based on underlying findings of fact, a reviewing court will reverse a decision and set aside findings as clearly erroneous when the decision is "against the clear weight of the evidence or leaves the court with the firm and definite conviction that a mistake has been made." *Application of Nebraska Public Power Dist.*, 354 N.W.2d 713, 719 (S.D. 1984). *See also, Sopko v. C & R Transfer Co., Inc.*, 575 N.W.2d 225, 229, 1998 SD 34, ¶ 6 (S.D. 1998).

II. THE PUC'S DECISION IS CONTRARY TO THE CLEAR LANGUAGE OF THE POWER PLANT SITING STATUTE.

Under South Dakota's power plant siting statute, in order to obtain a permit, the Coal Plant Proposers have the burden of proof to establish that:

> (1) The proposed facility will comply with all applicable laws and rules;
>
> (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;
>
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
>
> (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

SDCL § 49-41B-22 (2006) (App. 43.)

A. Statutes Must Be Interpreted In Accordance With Their Plain And Ordinary Meaning.

The circuit court wrongly allowed narrowing, limiting, and qualification of the South Dakota power plant siting requirements, contrary to the clear intent of the

legislature as demonstrated by the plain language of SDCL § 49-41B-22 (2006). In South Dakota, courts construe statutes according to their intent, and that intent is determined from the statutes as a whole and in accordance with their language and its plain, ordinary, and popular meaning. *Whalen v. Whalen*, 490 N.W.2d 276, 280 (S.D. 1992). *See also, In the Matter of Petition of West River Elec. Ass'n, Inc.*, 675 N.W.2d 222, 226, 2004 SD 11, at ¶ 15 and 21 (S.D. 2004). The first rule of statutory construction is that language in the statute is of paramount consideration, while the second is if the words and phrases used have a plain meaning and effect, a court should simply declare their meaning and not resort to statutory construction. *Id.* Moreover, should statutory construction be necessary, legislative intent is derived from the plain, ordinary, and popular meaning of the language used. *Id.*; *In the Matter of Northwestern Public Service Company*, 560 N.W.2d at 927, 1997 SD 35, at ¶ 14.

An examination of the plain language of the siting statute demonstrates a forward-thinking and protective intent by the legislature, contrary to the approach the PUC and the circuit court have taken in this case. The specific language protects against the threat of injury, evincing an intent to identify and protect the environment *prior* to any harm occurring. SDCL § 49-41B-22(2) (2006). The legislature also chose not to enumerate the types of threats or potential injury, choosing wisely to enact a statute that can identify and address environmental harms of which we may learn or be concerned with well into the future as our knowledge and the science advances. *Id.* The legislature also chose not to limit the siting statute's application to those environmental injuries or pollutants that are subject to regulation, again wisely recognizing that regulation can often lag behind the science and understanding of injury to the environment and that the need to protect

the environment and public are broader. *Id.* The plain language of the siting statute set forth a broad, protective, and largely unqualified obligation for the Coal Plant Proposers and the PUC to prevent the siting of any plant that poses a threat of serious injury to the environment generally.

B. The PUC Improperly Narrows The Statutory Standard For Protecting The Environment.

It is undisputed that the increase in CO_2 pollution that Big Stone II will contribute to the very serious environmental problem of global warming is more than just a threat. It is real. Big Stone II agrees that it will contribute 4.7 million tons of CO_2 pollution to the atmosphere every year for the life of the plant. The Coal Plant Proposers offered no evidence to rebut this fact. The Coal Plant Proposers offered only argument that the magnitude of the harm relative to the serious global environmental problem *appears* small. The Coal Plant Proposers offered no evidence that it actually was small in environmental impact, especially considering the cumulative nature of global warming pollutants, nor how large Coal Plant Proposers thought it had to be. They simply asserted that the percentage looks small, so it must be a small impact. The PUC adopted this argument in the face of the evidence to the contrary.

Contrary to the broadly protective purpose of the siting statute, the PUC's decision effectively imposes an obligation on Appellants to prove that harm from Big Stone II will actually occur and that it will occur at very large magnitudes. The PUC argues for complete deference on its application of the statute. While an agency's expertise is recognized in situations like this, it does not give the agency latitude to ignore the dictates of the statute. "The agency must lend credence to the guidelines established by the statute". *West River Electric Ass'n, Inc.*, 675 N.W.2d at 230, 2004 SD

11, at ¶ 25; *Northwestern Public Service Company*, 560 N.W.2d at 929-930, 1997 SD 35, at ¶ 29. None of the limitations applied by the PUC in its decision or subsequent arguments are found in the language of the statute, and they run contrary to the clear intent of the South Dakota Legislature as set forth in the plain language of the statute.

1. The plain language of the statute references threats of, not actual, injury.

The plain language of the statute prohibits the PUC from approving any plant where the plant will pose a *threat* of serious injury to the environment. The plain language of the statute does not require proof of actual injury to the environment. The PUC effectively equates threat of injury with actual injury. (PUC circuit court brief, p. 17.) This is contrary to the plain language of the siting statute. The word used by the legislature is threat of injury. If the legislature wanted proof of actual injury by public interest parties such as Appellants, the legislature would have said so. It did not. Rather, the legislature directed the Coal Plant Proposers to demonstrate to the PUC that Big Stone II will not pose a threat of serious injury to the environment. Imposing the requirement of Appellants showing actual harm particular to Big Stone II is clear legal error by the PUC and should be reversed.

2. The plain language of the statute requires a serious environmental injury, but does not assign a particular level of magnitude.

By adopting the "it's not that much relative to the world" argument as a proxy for real analysis of the potential for injury, the PUC disregards the plain language of the statute. The PUC found Big Stone II will increase CO_2 emissions approximately .0007% and as a result, "the proposed Big Stone Unit II plant will not contribute materially to increases in the production of anthropogenic carbon dioxide". (R. 8306; App. 27.) The

standard of "material contribution" to serious injury to the environment is not present in the statutory language. This qualifier narrows and limits the reach of the siting statute protections for the environment and the public, and is contrary to the legislative intent that any and all threats of serious injury must be considered and avoided.

While the plain language requires the environmental injury to be serious, it does not necessarily refer to the size of the injury. Seriousness can be size of injury but also refers to the type of injury in question. A few tiny bacteria can be extremely serious. The dictionary definition of serious is "grave, weighty, heavy" or "concerned or dealing with grave or important matter, problems etc." or "giving cause for anxiety, critical, dangerous". *Webster's New World Dictionary,* College ed. In this case, while Appellants argue and presented evidence that the size is indeed significant, it is the seriousness or dangerous qualities of global warming that is sobering and that presents the basis for denying the Big Stone II permit. The PUC, by limiting it inquiry to the relative size of Big Stone II's contribution, reads a requirement for a particular level of actual injury that is not in the language of the statute. Again, imposition of this additional qualifier is clear legal error and should be reversed.

3. The statute does not impose a twenty-mile limitation for examination of threats of environmental injury.

Finally, Appellees argue post-decision that Appellants must demonstrate materially significant, actual harm in a twenty-mile radius of the plant, because prior to the time Appellants became parties, the PUC defined a twenty-mile radius as the "affected area" for other purposes under the South Dakota power plant permitting laws

and procedures.[4] Again, this constriction is contrary to the language of the siting statute. "Affected area" is not defined in the siting statute, nor is that phrase used in reference to threat of serious injury to the environment.

The words "in the siting area" occurring at the end of § 49-41B-22(2) (2006) clearly do not modify the consideration of threat of serious injury to the environment as there is no comma after the word "inhabitants." Rather, there are two distinct concepts in this subpart of the siting statute. The first concerns the subject of this appeal—whether Big Stone II will pose a threat of serious injury to the environment. The second concept concerns impacts to the social and economic conditions to inhabitants in the siting area. The two are connected with a "nor", and "in the siting area" is not set apart grammatically, clearly only modifying the second concept of social and economic conditions of inhabitants to which is it grammatically connected. This Court subscribes to the statutory interpretative guide of the rule of the last antecedent, which provides that a limiting clause remains confined to the last antecedent unless the context or obvious purpose requires a different interpretation. *Satellite Cable Services, Inc. v. Northern Electric Cooperative, Inc.*, 581 N.W.2d 478, 483-83, 1998 SD 67, ¶ 15 (S.D. 1998). In this case, that means that the phrase "in the siting area" modifies only the last antecedent which is the impacts to social and economic conditions to inhabitants. This is a logical and reasonable reading and there is no different interpretation necessary. There is simply no statutory authority for the PUC to now argue that the consideration of threats to the environment be limited to a twenty-mile radius around a proposed power plant site.

[4] The twenty-mile constriction does not appear to be part of the PUC's actual findings or considerations on the global warming issue as the PUC's findings clearly reference the problem of CO_2 worldwide and Big Stone II's contributions to that larger problem.

Moreover, such limitation is unreasonable, given the pollutants or threat under examination. The PUC identifies an "affected area" under its authority in SDCL § 49-41B-2 (2006). Under the PUC's own regulations for defining the "affected area", it is that which may be affected environmentally, socially, or economically. ARSD 20:10:22:01 (2006). Dr. Olesya Denney, on behalf of the PUC staff, testified "by nature, the air emissions in question have a regional, rather than local nature in the sense that they are often transported hundreds of miles away from the source." (R. 2381.) The area of environment affected by CO_2, if not global, should at a minimum be regional due to the nature of air pollution and the obvious impacts therefrom. The PUC appears to recognize this approach given what it says, for example, about mercury and state-wide limits and sources for that air pollutant (which are also a global problem). The PUC's current argument that threats to the environment must only be considered if they occur within twenty miles of Big Stone II is a last minute post-hac rationalization for ignoring the great volume of evidence of injury from global warming and is contrary to the plain language and intent of the siting statute.

Appellants demonstrate a threat of serious injury to the environment, the actual standard under the siting statute. Global warming represents very serious injury, and Big Stone II represents more than just a small threat. Big Stone II will contribute measurably and significantly to global warming, worsening the problem both locally and worldwide. The magnitude of Big Stone II's impact on global warming is magnified by the fact that it is increasing South Dakota global warming emissions by 34% when all the experts in the world recommend immediate large reductions in CO_2. The PUC's qualifiers and artificial limitations should be reversed as legal error, contrary to legislative intent.

B. The PUC's Post-Decision Explanations For Disregarding The Weight Of Evidence Of Injury To The Environment Exceed The Authority And Discretion Of The PUC Under SDCL § 49-41B-22 (2006).

The PUC excuses its disregard of the great weight of evidence on global warming by making two new arguments post-decision based largely on a rationale that it is simply not South Dakota's responsibility to consider and address. This rationale is not found in the plain language of the siting statute and represents the unfettered exercise of the PUC's *will* outside the boundaries of its authority in § 49-41B-22 (2006).

1. The PUC improperly considered whether other states regulate CO_2 and wrongly concluded that because they did not, Big Stone II met the requirements of the siting statute.

The PUC argues post-decision that it permitted Big Stone II in the face of threat of serious injury from global warming because no other states impose regulatory or permit limits for CO_2. (PUC circuit court brief, p. 8.) This justification is irrelevant to the issue under consideration. This is not an air permit proceeding, the venue where permit or regulatory limits for Big Stone II CO_2 would be addressed. It is immaterial whether other plants in other states have permit limits for CO_2. Such consideration is outside the analysis to be made under the plain language of the siting statute, yet PUC admits that it engaged in improper and extra-legal considerations in reaching its conclusion that Big Stone II does not pose a threat of serious injury to the environment. The PUC's decision should be reversed as an unwarranted exercise of discretion.

2. The PUC improperly factored into its decision that it could not deny Big Stone II a permit because it would adversely impact old coal-fired technology.

The PUC also argues that its decision against the great weight of evidence on global warming must be excused because to find Big Stone II poses a threat of injury to

the environment would amount to a "complete ban". (PUC circuit court brief, pp. 7-8.) The rhetorical questions asked in the PUC's circuit court brief suggest the complete ban would be on pulverized coal power plants. *Id.* The PUC's consideration of this possibility is outside the authority and direction of SDCL § 49-41B-22 (2006) and not factually supported. The siting statute does not require permitting a plant that is a threat of serious injury to the environment in order to avoid an adverse impact on a specific technology or type of power plant. Moreover, in making such finding, PUC further ignored copious evidence of the many less-polluting alternatives to pulverized coal in the record, such as IGCC coal-fired plants that sequester carbon, carbon offsets for coal plants, demand-side controls, and wind power.[5] There is no authority for the PUC to engage in the kind of ad hoc policy analysis and decision-making that it now admits to. The PUC's decision to permit the Big Stone II plant should be reversed as discarding evidence and basing its decision on considerations not authorized under the statute.

3. The plain language of South Dakota's power plant siting statute provides no "balancing test" of environmental harm against economic gain.

The Coal Plant Proposers' statutory burden to show that Big Stone II will not pose a threat of serious injury to the environment under is *unqualified.* Nonetheless, during the hearing, after showing how Big Stone II will cause potentially billions of dollars of damage to the environment, PUC Staff took the step of comparing those damages to the economic benefits that Big Stone II would purportedly provide to the immediate area,

[5] The PUC's complaint about a "complete ban" on pulverized coal power plants suggests that the PUC believes its sole role is to permit pulverized coal power plants because nothing else is available, further demonstration the PUC ignored evidence in this case.

and, on the basis of this "balance", recommended approval of this highly destructive project. (R. 7873-7874.)

PUC Staff offered economic analysis from Dr. Denney who repeatedly argued for, and structured her testimony as, a comparison and balancing of the clear environmental injury from Big Stone II with the economic benefits to the immediate community. Dr. Denney, on behalf of PUC Staff, testified that calculations of environmental harm from the Big Stone II plant should be converted into monetary terms in order to provide a "point of comparison to the positive monetary impacts of the project on the community and state." (R. 2359.) Dr. Denney testified "[t]he proper context for the environmental effects—which are negative "external" effects of Big stone II to society and the environment—is to compare them to the positive socio-economic effects of Big Stone II". (R. 2385.) PUC Staff counsel inquired into Dr. Denney's comparison and Dr. Denney described how to engage in such comparison and balancing. (R. 2387-88.) Finally, Dr. Denney went into great detail to balance and compare the "net positive" from the increased economic gains to the state of South Dakota with the environmental damage—especially when the environmental damage is "narrowed down" to just the state. Dr. Denney blatantly noted "if we exclude the effect of carbon dioxide, the net impact of Big Stone II becomes positive." (R. 2390-91.) (*See also* Tables, R. 2389-92.) The PUC's Findings go into detail on the many economic benefits to the surrounding area, immediately following the PUC's findings that Big Stone II will emit CO_2 pollution, but "not that much" relative to world emissions. (R. 8306.) While the PUC's findings do not expressly admit that the PUC is engaging in an improper balancing test, given the blatant position urged by the PUC Staff, the very clear presentation of PUC

Staff evidence regarding the balance of harms against economic benefits and the detailed findings of the PUC as to economic benefit immediately following the finding that global warming harm was "not that much", the PUC's decision appears tainted by improper extra-statutory considerations. This Court cannot be certain that the PUC decision to approve Big Stone II, regardless of its obvious negative impact on the environment, did not involve an improper balancing consideration based upon PUC Staff urging it to do just that and based on Dr. Denney's testimony. To the extent that balancing entered into the PUC's decision, the PUC decision violated the plain language of the power plant siting statute. Where such "danger signals" exist as to an unwarranted exercise of discretion and/or error of law, it is proper for a reviewing court to overturn the agency decision, and, at a minimum, remand the matter for a more specific decision that is more clearly in compliance with the plain language of the statute.

Appellants request reversal of PUC's grant of a permit to Big Stone II and the circuit court's order affirming the decision as PUC's decision is legal error. The PUC failed to follow and apply the plain language of the siting statute, improperly limiting and narrowing its application and admitting that it weighed and considered matters outside the scope of its statutory authority, allowing the extraneous matters to affect its decision.

III. BIG STONE II WILL POSE A THREAT OF SERIOUS INJURY TO THE ENVIRONMENT, AND THE CIRCUIT COURT'S AFFIRMATION OF THE PUC DECISION IS CLEARLY ERRONEOUS IN LIGHT OF THE RECORD IN ITS ENTIRETY.

Examining the evidence in its entirety, the proper conclusion is that Big Stone II will pose a threat of serious injury to the environment. The PUC's decision to the contrary is so against the clear weight of the evidence in this case that Appellants argue it will leave the Court with the firm and definite conviction that a mistake has been made.

This case is very much like the situation addressed by the South Dakota Supreme Court in *Schroeder v. Dept. of Social Services* where the reviewing court noted that the evidence and specific findings clearly demonstrated insubordination, yet the agency found none, making the agency's conclusion based on the evidence completely unsupported and clearly erroneous. *Schroeder*, 545 N.W.2d at 228, 1996 SD 34, at ¶ 11 and 12. Similarly here, the evidence before the PUC and specific findings the PUC made regarding Big Stone II's emissions of CO_2 lead to the conclusion that Big Stone II poses a threat of serious injury to the environment. The PUC's conclusion to the contrary, and the circuit court's order affirming the PUC, is unsupported. Appellants request the Court to reverse the PUC's conclusion and the issuance of the Big Stone II permit.

A. The Record Establishes That Global Warming Is Serious Injury To The Environment, Globally And In South Dakota.

The burden of proof is on the Coal Plant Proposers to demonstrate that Big Stone II will, among other things, not pose a threat of serious injury to the environment. SDCL § 49-41B-22 (2006). The burden is not on Appellants to show that Big Stone II will cause actual harm to the environment of a particular magnitude. Yet, that is the result of PUC's decision in this case. Almost all the evidence regarding global warming, the most significant environmental issue the world has been called upon to address, was presented by Appellants with little to no evidence from the Coal Plant Proposers to the contrary.

That evidence shows an enormous environmental problem that will affect citizens of South Dakota, the region, and the world, in significantly adverse ways for many years to come. (R. 7216-17, 7222, 7230-35, 7238, 7249, 7269.) The magnitude of the environmental problem of global warming is entirely attributable to the emission of greenhouse gases, with CO_2 emissions from power plants being one of the primary

sources of those gases. (R. 7215-16, 7224-25.) Big Stone II will emit millions of tons of CO_2 annually and hundreds of millions of tons over its lifetime. (R. 4660, 7237-39.)

Not only does the evidence submitted by Appellants reflect the global scientific consensus, it is the same evidence that is pushing a policy response on the global, national, state and local levels.[6] It was neither necessary nor appropriate for the PUC to put itself in the position of the global scientific community and predict, or minimize, the impacts of global warming. That work is already done by the global scientific community, and the PUC was duty-bound to recognize these scientific findings, which are wholly unrebutted in the record before it.

B. Big Stone II Will Be A Large Source Of Global Warming Pollution.

1. Big Stone II will cause and contribute to irreversible changes to the environment that will remain beyond the operating lifetime of the facility.

Big Stone II will emit approximately 4.7 million tons of CO_2 per year. (R. 4660.) Big Stone II will emit the equivalent global warming pollution of nearly 670,000 cars, roughly two-thirds more than the CO_2 emissions of all the cars in South Dakota combined. (R. 7238.) Single-handedly, Big Stone II will increase South Dakota's total CO_2 emissions by 34%. This is magnified by its stark contrast to the recommendations of the world scientific community to begin immediate, sharp reductions in current CO_2 emissions, *not* increases. It is difficult to imagine anything the state of South Dakota could do to worsen global warming more in a single action than permitting Big Stone II, other than permitting an even bigger coal plant.

---

[6] The same scientific evidence that prompted the Western Governor's Association, now headed by Governor Rounds, to pass resolution 06-03, June 13, 2006, urging action to reduce greenhouse gases. http://www.westgov.org/wga/policy/06/climate-change.pdf.

The Coal Plant Proposers left unchallenged Dr. Hausman's statement that Big Stone II will cause irreversible damage to the environment, especially considering the plant's lifetime operation, the extremely slow recovery of the atmosphere, and the recommendations to reduce, not increase, emissions. (R. 7239.) In fact *none* of the specific evidence presented by Appellants was refuted by the PUC Staff or by the Coal Plant Proposers. The only evidence Appellees point to as supportive of the PUC's conclusions of no threat of harm is the minimal and unqualified statements of Ward Uggerud, that while Big Stone II will undoubtedly add 4.7 million tons of CO_2 to the atmosphere per year of operation, it just isn't that big of a deal as related to the overall global warming problem. (R. 4660-61.) He is an Otter Tail Power Senior Vice President with a 1971 Bachelor's Degree in electrical engineering, and with no expertise or professional experience or training in global warming, atmospherics, climate change, CO_2 feedback loops, impacts of CO_2 and global warming on natural or agricultural systems, etc. (R. 3803-3805.) Uttergard's thin testimony does not hold up in the face of highly-qualified expert evidence of the very real harm to the environment from CO_2 and the extensive contribution Big Stone II will make in worsening the problem. Big Stone II moves in the opposite direction from where the best minds in the world tell us we need to go. None of this was contested by Appellees.

Moreover, the damage from Big Stone II's CO_2 pollution does not stop with the eventual shuttering of the facility. Some of today's coal plants have been operating for 70 years. *Id.* Assuming a conservative lifetime for Big Stone II of 50 years, the plant will emit over 225 million tons of CO_2 before it closes *Id.* The CO_2 emitted from Big Stone II will continue warming the planet for centuries after the plant itself closes its

doors. The IPCC states that "several centuries after CO_2 emissions occur, about a quarter of the increased CO_2 concentration caused by these emissions is still present in the atmosphere." (R. 7265.) South Dakota's power plant siting rules clearly demonstrate concern over an energy facility's long-term environmental impacts. The Coal Plant Proposers are required to provide "estimates of changes in the existing environment which are anticipated to result from construction and operation of the proposed facility, and identification of irreversible changes which are anticipated to remain beyond the operating lifetime of the facility." ARSD 20:10:22:13. The Coal Plant Proposers ignored their obligation and failed to provide any such estimate. Appellants' testimony does provide and address the required information.

2. PUC Staff's evidence also shows serious environmental injury, measured in monetary terms.

PUC Staff's analysis of the environmental damage caused by Big Stone II's CO_2 emissions shows that *Big Stone II will cause a range of environmental damage from tens of millions to billions of dollars*. (R. 7865.) Environmental externalities represent environmental impacts that are not reflected in the costs of the party that causes the impact. *Id.* For example, global warming damages and the costs that it may cause to the insurance industry are considered an externality. Or, costs associated with more frequent road maintenance due to changing climatic conditions may be considered an externality. Or, costs associated with water quality deterioration in a small town downstream of a city with increased paved surfaces would be an externality relative to the city causing the

problem. All these are examples of costs borne by persons or governments that are not generating the pollution in question.[7]

The PUC Staff calculation relied mainly on a U.S. Environmental Protection Agency ("EPA") survey of externality studies showing that costs from the environmental impacts of CO_2 range from $1.50 to $51.00 per ton of CO_2 emitted. (R. 7852.) Using the low EPA value for annual CO_2 damages ($1.50 per ton) associated with Big Stone II (at 4.36 million tons CO_2 per year), yields $50,098,876 in CO_2 damages over 40 years of plant operation at a 10% discount rate. (R. 7865.) (calculation derived from subtracting "Lower Boundary" Total Externalities Excluding CO_2 from Total Externalities Including CO_2). Applying a 3% discount rate, these minimum EPA-quantified damages increase to $154,043,273. (R. 7868.) (calculation derived from subtracting "Lower Boundary" Total Externalities Excluding CO_2 from Total Externalities Including CO_2). The highest level of damages PUC Staff reviewed (EPA's $51 value) represents five billion dollars worth of cumulative harm caused by the CO_2 emissions of this one plant. *Id.* (calculation derived from "Upper Boundary" totals for CO_2 externalities).

---

[7] The PUC's decision is confused on this economic evidence. (*See,* Finding 137.) Two distinct types of economic evidence were before the PUC. One was the potential for regulatory costs on emissions of CO_2 such as would come from federal regulation. This is a direct cost "billed" to Big Stone II like a fee or a cost associated with a cap and trade program—a potential cost of doing business. That is *not* the type of cost referenced by PUC Staff in assessing the environmental damage from Big Stone II in economic terms. PUC's findings appear to confuse and conflate (consistent with continued mixing of the concepts by the Coal Plant Proposers) potential CO_2 direct regulatory fees or costs with that of environmental externalities costs. Externalities are not direct fees or costs paid by the polluter. Rather, they are actual costs borne by society due to the actual damage caused by the pollution generated by Big Stone II the very day it starts up, and they are not speculative and not dependent upon regulation. It is these actual environmental damage costs, that Big Stone II will never pay, that are relevant to this appeal.

PUC Staff also calculated externalities costs using the average of EPA's high and low values. (R. 7852, 7856, 7860.) Using an average of EPA values ($26.00 per ton) puts Big Stone II environmental damages from CO_2 pollution into the billions of dollars.

PUC Staff further introduced evidence regarding some states' development and use of externality values or figures. Using the Minnesota PUC externality value of $3.64 per ton of CO_2 would obviously more than double the low-end EPA damages to a figure in excess of $100 million. The California PUC value of $8.00 per ton of CO_2 would double again the Minnesota-based calculation of damages to far in excess of $200 million. (R. 7852, 7856, 7860.)

Although PUC Staff reviewed and applied a wide range of quantified CO_2 environmental damages to Big Stone II, any one of the valid calculations shows the environmental damages of Big Stone II are enormous.[8] Even using any of these low externalities values shows hundreds of millions of dollars of environmental damage from Big Stone II's CO_2 emissions. Such extensive damage clearly qualifies as "a threat of serious injury to the environment" under SDCL 49-41B-22(2) (2006), further supporting a denial of Big Stone II's permit under the siting statute. Appellants request reversal of PUC's approval of the Big Stone II permit.

C. The PUC's Findings Acknowledge The Threat And Seriousness Of Global Warming But Wrongly Conclude Big Stone II Does Not Play A Part.

The PUC's ruling acknowledges the uncontested facts of Big Stone II's very large amount of CO_2 emissions—4.7 million tons per year, 225 millions tons over 50 years, a

[8]Appellants note, in calculating Big Stone II's environmental damages, PUC Staff underestimate Big Stone II's CO_2 emissions, counting them as 4,363,868 tons per year, (R. 7852), rather than at the 4.7 million tons per year Coal Plant Proposers state it will emit. Appellants also note PUC Staff's cumulative damages assume only 40 years of operation, a short lifetime judging by coal plants in operation today.

conservative estimate. The PUC's ruling also acknowledges CO_2 is a pollutant of concern (Finding 119) and implicitly that global warming from greenhouse gases such as CO_2 is a serious environmental problem.

1. Big Stone II's CO_2 pollution and its contribution to global warming demonstrate a cumulative environmental injury under the PUC's rules.

The PUC's rules related to its examination of potential environmental injury require the Coal Plant Proposers to provide information regarding environmental effects of Big Stone II and:

> The environmental effects shall be calculated to reveal and assess demonstrated or suspected hazards to the health and welfare of human, plant and animal communities which may be cumulative or synergistic consequences of siting the proposed facility in combination with operating energy conversion facilities, existing or under construction.

ARSD 20:10:22:13 (2006) (App. 45.) While the expertise of an agency in applying its rules is recognized, an agency is not free to ignore application of its rules. An agency must apply the law before it, including its own rules. *Schroeder*, 545 N.W.2d at 229, 1996 SD 34, at ¶ 9 (*citing Hartpence v. Youth Forestry Camp*, 325 N.W.2d 292, 297 (S.D. 1982)). Failure to do so may demonstrate a clear error of law and/or arbitrary and capricious decision-making driven by the agency's will, not by its reasoned judgment. The language of the rule is evidence of its intent; that environmental injury can come in one large dose from a single source, or, much more commonly, as an accumulation of insults, often interacting with, and adding to, each other with disastrous consequences. As clearly recognized by the PUC in enacting its rule, if not properly analyzed at the outset, cumulative environmental effects may be recognized only after the damage is done. This in turn comports with the plain language and intent of the siting statute to

assess threats to the environment prior to siting. The Coal Plant Proposers provided no such calculation. (R. 4801-4802.) Conversely, Appellants presented significant evidence showing that Big Stone II will have cumulative effects—that the cumulative impact of America's coal plants is "staggering". (R. 7239.)

Here, analysis of cumulative impacts on the problem of global warming, the single biggest potential injury to the environment that Big Stone II poses, must at a minimum concern itself with regional, if not worldwide, cumulative impacts of CO_2 pollution on global warming. The PUC, consistent with the testimony from Drs. Denney and Hausman, should have considered the cumulative impacts of CO_2 emissions over a much broader area and ranges of sources relevant to the actual potential environmental injury under consideration. For an air pollutant like CO_2, this necessarily involves a broader analysis than simply "Big Stone II plus Big Stone I", as argued by the Coal Plant Proposers. Again, while the PUC is accorded some deference in interpreting its own regulation, such deference does not extend to ignoring the regulation's plain language.

The Coal Plant Proposers have argued that Appellants must show[9] this "particular facility will have a serious adverse impact" and because that particularized harm was not found by the PUC, there are no cumulative impacts. This argument fails to conform to the very concept of cumulative. The dictionary definition of cumulative is "increasing in effect, size, quantity, etc. by successive additions," *Webster's New World Dictionary*, College ed.[10] This could not better describe the situation with global warming and CO_2 pollution from Big Stone II. Big Stone II will make a significant increased contribution

[9] Again, the burdens here are not Appellants'.

[10] South Dakota does not define the term cumulative impacts or cumulative effects anywhere in its statutes or regulations.

to a very serious cumulative environmental problem at a time when current levels of CO_2 must be sharply reduced. The PUC's disregard of this fact is clearly erroneous.

2. Big Stone II's contribution of CO_2 to the very serious problem of global warming is enormously significant by the very fact that it is measurable and represents such a large increase from South Dakota.

The Coal Plant Proposers have not attempted to present any credible evidence to rebut the significant body of evidence that global warming is a tremendous problem, that coal plants are a major cause of it, or that Big Stone II will greatly increase South Dakota's contribution to it for many decades to come (indeed centuries, considering the lingering impact of its emissions) in stark contrast to the need for very large reductions of current levels of CO_2. However, the record demonstrates global warming is a problem of overwhelming proportions, and even a fractional share of the damages associated with it represents an enormous amount of environmental damage.

Mr. Uggerud, with no educational or professional qualifications in atmospheric or meteorological science, biological science, or the problems of global warming, (R. 3803-05), is the only witness for the Coal Plant Proposers to even touch on any of the evidence of the harms of global warming and Big Stone II's role in it. The Coal Plant Proposers are content to have Mr. Uggerud point out that Big Stone II will amount to just a fraction of global anthropogenic emissions, so apparently Big Stone II is 'no big deal.' (R. 4660-4661.) There is no supporting evidence from the Coal Plant Proposers of just what percentage of global CO_2 is a 'big deal.' They simply rest on appearances of a number.

Again, Big Stone II represents a 34% increase in CO_2 emissions from the state of South Dakota, which increase is magnified by the fact that sharp reductions from current levels are necessary to avoid the most damaging environmental consequences. Ignoring

this sizeable jump in contrast to needed reductions necessarily means the PUC apparently believes that South Dakota has no role nor responsibility for this very significant and very damaging environmental problem. Such a position is outside the bounds of reasonable thinking and demonstrates that the decision to permit Big Stone II under the siting statute is against the clear weight of the evidence and will leave the Court with the firm and definite conviction that a mistake has been made. *See, Application of Nebraska Public Power*, 354 N.W.2d at 719.

Moreover, PUC and the circuit court overlook that a fractional share of a huge problem can be very significant. Dr. Hausman addressed this issue directly. CO_2 and global warming are a cumulative problem warranting immediate reductions from current levels. Therefore, adding even a fraction to the problem makes a difference. (R. 7564.) Dr. Hausman draws the opposite conclusion from Mr. Uggerud regarding the "smallness" of Big Stone II's share, backing his conclusion with actual facts and scientific reasoning. Dr. Hausman notes that as a global problem, CO_2 pollution involves hundreds of thousands of points sources (smokestacks) and millions of nonpoint sources (e.g. cars and other activities). Given that, a single source in South Dakota that will increase an actual measurable share of the problem represents a huge contribution to serious environmental injury. (R. 7564.) If global warming were a small problem, then Big Stone II's share of it would indeed constitute a small amount of environmental harm.

Interestingly, while the Coal Plant Proposers and the PUC argue in some parts of this case for drawing a tight twenty-mile circle around the plant, in this instance the Coal Plant Proposers compare Big Stone II to world sources of CO_2. Again, in making that comparison, Coal Plant Proposers and the PUC must admit global sources of CO_2 include

millions of sources, from as small as a single car, to large industrial complexes, to natural sources. The mere fact that the PUC and the Coal Plant Proposers can identify Big Stone II as a measurable amount of CO_2 pollution *in the world* is significant. The Coal Plant Proposers and PUC's cavalier dismissal of the biggest contribution South Dakota has ever made to this severe and urgent environmental threat runs counter to the plain statutory language of the siting statute that requires Big Stone II not present a threat of serious injury to the environment. The PUC's decision and the circuit court's order affirming the decision are clearly erroneous in light of the record as a whole.

CONCLUSION

Appellants request reversal of the PUC's decision to grant Big Stone II a permit under SDCL § 49-41B-22 (2006) and the circuit court's order affirming the PUC's decision. Appellants argue legal error and base their request on the PUC's failure to apply the plain language of SDCL sec. 49-41B-22 (2006) in that the PUC improperly narrowed and limited its inquiry under the siting statute and based its decision on matters outside the scope of the PUC's authority under the siting statute. Appellants also argue that the PUC's decision is clearly erroneous in light of the record as a whole. The record clearly shows that Big Stone II will pose a threat of serious environmental injury by contributing 4.7 million tons of CO_2 to the global warming problems every year of its existence for over 50 years, and the PUC's decision that a state-wide increase of 34% is just not that much is simply unsupportable.

RESPECTFULLY SUBMITTED

Date: 4/26/07

John H. Davidson
USD School of Law
414 East Clark Street
Vermillion, South Dakota 57069
(605) 677-6341

Janette K. Brimmer
Minnesota Center for Environmental Advocacy
26 E. Exchange St., Ste. 206
St. Paul, Minnesota 55105
(651) 223-5969

Attorneys for Fresh Energy, Izaak Walton League of America – Midwest Office, Union of Concerned Scientists, and Minnesota Center for Environmental Advocacy

APPENDIX