

EXPANDED HORIZONS

Alternative Routes and Environmental Considerations for the proposed Chisago Electric Transmission Line Project

**A Report to the Minnesota Environmental Quality Board
by the Route Advisory Task Force
May 1997**

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APPENDICES

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APPENDIX B

PUBLIC TESTIMONY

A: WRITTEN

1. Morris Anderson. February 26, 1997
2. Loren Caneday, Taylors Falls Council member. March 6, 1997
3. Tom Martin. March 10, 1997
4. Barbara Young, St. Croix Valley Heritage Coalition. March 12, 1997
5. Barb Fredrickson. March 17, 1997
6. Senator Alice Clausing and Representative Bob Durholm, Wisconsin. March 25, 1997
7. Mark Oberg, Lindstrom, MN. March 31, 1997
8. Mark Oberg, Lindstrom, MN. April 6, 1997
9. Mark Oberg, Lindstrom, MN. April 14, 1997
10. Sherryl Johnson, Chisago Lakes Area Schools. April 21, 1997
11. Norman and Joan Purrington. April 30, 1997
12. Paul Heinrich, Centuria, WI. May 5, 1997
13. Mark Oberg, Lindstrom, MN. May 19, 1997

B: VIDEO

"In the Matter of: Citizens Along the Proposed Routes Respond." About 30 landowners present their views on the proposed Chisago Electric Transmission Line Project.

C: ORAL

Many individuals attended task force meetings and made oral comments to the task force during the Public Comment time. The tape recordings of the meetings are available from the EQB office at 300 Centennial Office Building, 658 Cedar St., St. Paul, MN 55155.

Morris Anderson ~

2-26-97

We are property owners of land bordering the NSP substation built in 1978 and have concerns about the safety with additional power demands that will result from the proposed line.

When initially constructed the line was designed for 250 mega watts. When the second line was added, an additional 250 mega watt capacity was present. One mega watt is able to supply 1000 homes.

Canada relies on hydroelectric power from 20 dams constructed along the Churchill and Saskatchewan Rivers. During the winter, these rivers freeze and the hydroelectric plants are unable to operate. During these times, NSF sends power to Canada. Taking on the additional demand of delivering power to Wisconsin raises a concern of overloading this capacity. Building on to the original structure is expensive as well as a potential safety hazard.

^{three}
The ~~transformers~~ transformers installed in 1978 weighed 135 tons each and required special permits to be transported on the tractor trailer with 96 wheels because of the potential road damage. Each transformer is filled with 12,000 ~~gallons~~ gallons of oil each. When bushings and cooling radiators are added - each weighs 40,000 lbs. A fourth transformer was transported as a spare. One individual on the initial construction crew advised the transformers can "blow up" - hence the safety concerns.

Lastly, the cost in 1978 for these transformers was \$600 thousand. Adjust this for current inflation and we ask if the cost is reasonable considering no one in Minnesota will benefit.

March 6, 1997

Mr. Richard Herold, Chair
And Members of the
EQB Route Advisory Task Force

Dear Board Member:

The board's recent decision to ask the EQB to pay for the services of a consulting engineer prior to its first recommendations to the EQB may very well be counterproductive. While it may seem to be necessary to get more information, the immediate task before the board is not to increase conservation of electricity. Conservation will go only so far in delaying construction and a proposal for this area may be back in a very few years. Utilities are thinking on the magnitude of a decade or more while I fear the Task Force is not thinking of the work it has been charged to do in the next few weeks. The Task Force should not be thinking it can regulate the unregulated utility companies in Wisconsin. That is the work for legislators over much more time than the next 7 weeks.

Preoccupation with need now will limit your work on designating alternate routes and thus by default probably shackle the citizens of Chisago and Polk Counties with the powerline. Is this board qualified to establish need? No. Are some members of the board convinced there is a lack of need? Yes. Can you find consultants who will propose an excess of electricity? Yes. But what has that solved? What does it benefit for you to be convinced? Convincing the EQB is the solution, but that can wait. Right now please expand the options beyond Chisago and Polk Counties. Assume there is a need—a large need right now. That is the safe route. Assume the worse case scenario. Assume that if the proposed Minnesota legislation passes, need may still be established by the Minnesota Public Utilities Commission. To do otherwise shortchanges those whom you represent. The board does not need to know anything about need—at least for now.

Your task is to propose alternate routes in behalf of the citizens of two counties. By aiming now for a no build option, you are narrowing consideration to just Chisago and Polk Counties and thus may very well ensure that the powerline is built here, contrary to the wishes of many of you. This course of action jeopardizes the real work which many Chisago and Polk County citizens trust the board will do. Labor diligently now to expand the options so that our area is not the only one considered for the proposed powerline.

It has been voiced so many times—"We don't want to dump this on our neighbors!" Either convince the EQB to consider more options or feel the anger of your close neighbors in our counties when the powerline is built here because we could not establish a lack of need or a no build policy. I would rather feel the anger of our more distant neighbors in Sandstone or Arpin or Superior or Markville than the anger of my close neighbors because of my failure to propose alternate routes. Don't be so sure our more distant neighbors would never attempt to dump a powerline on us by including our area in their proposed list of alternate routes. What will you do with your anger then?

The board already knows enough about how the grid system works. NSP made it very clear that the Chisago and Apple River substations are crucial to their project. All the points

between the two are subordinate to the substations. If these two substations are the only ones for the EQB to consider, then assuredly, there will be a 230 kV line somewhere between these two points.

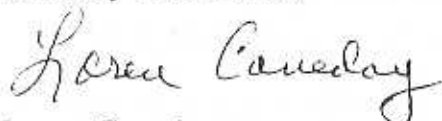
Think then of crucial substations which may be connected in a much larger area between "Duluth and Dubuque." So what if Chicago may ultimately benefit by the grid. That may very well benefit us locally because the line is built elsewhere. You already have the important documents in your possession which show the options which are still "in the mix." In the next 7 short weeks, the citizens of our area are trusting you to recommend to the EQB to put these and/or other alternate routes on the agenda for consideration.

Also, the board already has the best advisors available. Use the EQB staff to find out what it takes to convince the EQB to include other routes. The staff members know how the board members think. They have been through the process many times. They too are endeavoring to propose alternate routes, so who better than they to use as consultants to help the board do that? Don't snub their expertise because of suspicion. Suspicion lurks around every corner. Some unsuspecting (to whom?) consultants may be hired, but the board still must work with the "suspicious" NSP and "suspicious" EQB and "suspicious" EQB staff. Suspicion will cripple the Task Force. Distrust will isolate the board from the decisionmakers and cause us to play in an entirely different world—a world where we cannot influence the decision. I believe the process really works.

In behalf of the citizens of Taylors Falls, whom I represent, I strongly support those who voted nay to hiring a consultant before the April 28th recommendation deadline. I urgently plead with you to put all your efforts into expanding the number of alternate routes now. I am already on record opposing the blighting of the St. Croix River Valley, but we shall not gain that noble goal by focusing on the nonexistence of need and conservation, both of which are beyond your control. The Route Advisory Task Force has been given a certain level of influence by Minnesota State Statute. Use it! Use the EQB staff and even the NSP personnel. View them as real people who make decisions just like you and I do. You have been invited by the State of Minnesota to influence its decision making. Count that as a privilege and honor. Please live up to that calling by honoring the citizens of Taylors Falls and the two counties by devoted efforts to propose alternate routes beyond the highly treasured St. Croix River Valley.

At your next meeting, please move to reconsider last week's decision. It will truly serve the public interest.

Sincerely with thanks,



Loren Caneday
City of Taylors Falls Council member
890 Furuby Road
Taylors Falls, MN 55084

March 10, 1997

Dear Task Force Member,

Of the five plans for serving Northwest Wisconsin electrical needs, Plans C and D have been brought forward by the PSCW on the basis that they are the cheapest cost plans (present value of cost of construction and electrical losses). While these plans may be the cheapest to construct, some interesting things happen to Plans C and D as you look at how these solutions hold up under possible changes in energy demands and costs in the future.

To begin with, let's look at power transfers across the interface. Power transfers occur when Eastern Wisconsin Utilities buy power from Western Wisconsin Utilities. As you can see from the chart below, Plans C and D costs increase on a greater percentage than Plans A, B, and E.

Plan	35 Year PVRR(\$1995)	+ Loss Penalty \$1.50/Watt	= Plan Cost Base Transfer	Plan Cost 1200MW Transfer	% Increase In Plan Cost
A	\$111.6	\$0	\$111.6	\$ 111.6	0%
B	\$73.1	\$24.0	\$97.1	\$ 131.6	35.5%
C	\$33.3	\$19.5	\$52.8	\$ 85.8	62.5%
D	\$52.5	\$0	\$52.5	\$ 79.5	51.4%
E	\$64.5	\$12.0	\$76.5	\$ 103.5	35.2%

(Chart taken from page 4 of addendum to Interface Study 3)

With the deregulation of the utility industry looming on the horizon, I think it would be safe to say that Eastern Wisconsin Utilities (serving Milwaukee, Chicago, and beyond possibly in deregulated environment) will be buying more power from Western Wisconsin Utilities in the future. In fact Bud Kehrli alludes to this in his letter in Interface Study 3, dated 1/11/95 where he states "Economy energy purchases between MAPP and WUMS (a subregion of MAIN) are likely to continue in the future." This will increase transfers more toward the 1200MW scale and possibly even higher. As the transfers increase, Plans C and D get proportionally worse than Plans A, B, and E. This makes Plans C and D poor choices for future growth in transfers.

Another interesting item occurs in Plans C and D when you combine the increase in transfer capability with the increase in energy loss penalty per watt. Interface Study 3 states that it is hard to "nail down" an exact value, but the Wisconsin utilities agreed on a \$1/watt to \$4/watt energy loss penalty range.

Plan	35 Year PVRR(\$1995) +	Loss Penalty \$1/Watt	Loss Penalty \$4/Watt	= Plan Cost \$1/Watt	Plan Cost \$4/Watt
A	\$111.6	\$0	\$0	\$111.6	\$111.6
B	\$73.1	\$39.0	\$156.0	\$112.1	\$229.1
C	\$33.3	\$35.0	\$140.0	\$ 68.3	\$173.3
D	\$52.5	\$18.0	\$ 72.0	\$ 70.5	\$124.5
E	\$64.5	\$26.0	\$104.0	\$ 90.5	\$168.5

(Chart taken from page 8 of Interface Study 3)

Plan A actually becomes the cheapest plan as the loss penalty per watt increases. Plan C goes from being the cheapest plan at \$1/watt to being next to last in terms of costs at \$4/watt. I think it would be safe to assume that the costs will move toward the \$4/watt side in the future. This again makes choosing a plan based on PVRR (Present Value of Revenue Requirements which is basically the investment required to construct the plan) questionable.

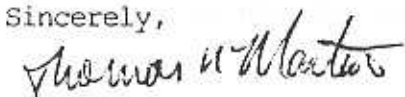
Matt Weber, a Transmission Engineer, includes a letter in Interface Study 3 dated 1/23/95. In it he states "Of particular interest, the Arrowhead-Arpin Plan provides as much or more transfer capability as any of the alternatives. Although the Arrowhead-Arpin Plan has the highest investment costs of all alternatives, it also has significantly lower costs that can offset the higher investment." Indeed, if you look at the charts, Plan A never gets penalized at all as transfers increase or as loss penalties per watt increase. Simply looking at future energy demands on the system and increases in costs that will come with time, Plan A is the superior plan.

As far as costs to the environment are concerned, Plan B is the superior plan. It utilizes two existing river crossings (the King 115kv crossing and the Red Rock/Crystal Cave 115kv crossing) and for the most part, Plan B "recycles" lines that are already in existence. There would be no need to further damage the St. Croix River with another crossing. The only new damage to the environment would be the Stone Lake to Bay Front 161kv line. This line however, would be built in Plan D anyway. By using Plan B a win/win situation is developed - the utilities would get their interface and the people would continue to enjoy a good quality in the environment.

It is stated many times in Interface Study 3 that none of the plans should be eliminated based on economics. Although Plan B is the most expensive plan in terms of dollars, in terms of environmental quality it is the best plan. New river crossings and additional people exposed to EMF are "hidden costs" in the other plans. Please include Plan B in your decision "universe".

Thank you for your time and considerations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas R. Martin".

Thomas R. Martin



ST. CROIX VALLEY HERITAGE COALITION

Post Office Box 332

Taylors Falls, Minnesota 55084

612/462-2879

... Remember the dream

March 12, 1997

Route Advisory Task Force Chisago Electric Transmission Project

Attn: John P. Hynes

Minnesota Environmental Quality Board

300 Centennial Building, 658 Cedar Street

St. Paul, MN 55155

Dear Mr. Hynes,

The St. Croix Valley Heritage Coalition moved at its March 12 Board meeting the following:

Regarding the any proposed power line crossing of the St. Croix River it was **Moved, Seconded and Passed** that the St. Croix Valley Heritage Coalition asks to be on record by the Minnesota EQB as being opposed to any additional power line crossings of the Federally designated Wild and Scenic St. Croix River waterways.

Our immediate primary concern is the proposed Plan C and D in which the power line travels through Chisago County, Minnesota and Polk County, Wisconsin crossing the St. Croix River at Taylors Falls/St. Croix Falls. The potentially adverse effect on the tourism economy along with the scenic and geological integrity would be enormous because of the unique geological formations which create a dramatically beautiful landscape. This location is also the juncture of the upper and lower levels of this scenic river. These attributes alone demand that this portion of the river way with many public scenic overlooks from both sides, not be changed further. This area with its rich diverse history, established State parks, natural beauty and recreational opportunities has been a major tourism destination for over a century.

The St. Croix Valley Heritage Coalition was formed for the purpose of building a facility and providing in-house and outreach programming with the mission of establishing a resource to explore and understand both the human and natural history of the entire St. Croix Valley from its origin in Solon Springs, Wisconsin to Prescott, Wisconsin. It is envisioned as a center of ideas for the interpretation of the past, enhancement of the present, and preparation for the future needs of the people and environment associated with this rich resource. On February 27, 1997 the Scenic Overlook on Highway 95 one mile north of Taylors Falls was purchased by the Coalition for the Center, with site development beginning this summer using ISTEA enhancement funding.

The St. Croix Valley Heritage Coalition includes and is supported by individuals, businesses, governments, cultural and service organizations and grant makers from Minnesota, Wisconsin and beyond who are interested in acting as stewards and interpreters for the entire St. Croix River and Valley.

Respectfully submitted,

Barbara F. Young
Barbara Young, Secretary. (612) 465-6635



March 17, 1997

To: EQB: John Hines, Chair &
EQB: Task Force Committee
Re: Concerns, NSP Proposed Routes
Submitted By: Barb Fredrickson, (Concerned Citizen)

I'm concerned about many issues with this project, as are many citizens in this area.

Why is a heavily populated and growing corridor being recommended over others that are not so populated? Not to mention the effects this proposed line would have on the St. Croix River, the beauty and tourism. We live on the gas line corridor between Sunrise Lake and on Vibo Lake. I'm very concerned about our families, the wild life and farming.

We bought the farm in 1965. Since that time we have and are still active in developing the land for the wildlife and farming. We have planted thousands of trees and shrubs, even moving in huge tree spade trees for soil erosion conservation, wildlife and beauty. We have and are working with Randy Schendel, Mike Muhler and Ed Beck with the DNR and ASCS offices in providing these plantings for erosion, birds, wildlife, nesting and shelters. Two years ago we and Ed Beck's staff planted over 3000 trees and shrubs. Last spring we worked with the DNR in developing the pond off the lake that runs on into the Sunrise river just down the road from us. This was for the bald eagles, king fishers and many egrets that fish this pond all summer long each year. We hired Prairie Restorations and developed one acre of land in front of the lake into a wild flower meadow for the butterflies, hummingbirds and other species.

This gas line, if chosen to follow, runs directly diagonally across our farm land and directly in between Sunrise Lake and Vibo Lake where all these birds fly from and to.

A few species of animals and birds that come here include: Egrets, bald eagles, wood ducks, Canadian geese, mallards, shovelers, many many species of ducks. In the last two years we have started getting the loons here also. Many cardinals, doves, redheaded woodpeckers, pileated woodpeckers, yellow headed blackbirds, warblers, fox, opossum, beaver, many species of squirrels, deer, pheasants, grouse, rabbits, etc. The list could go on and on.

I believe all these birds and animals live, nest and eat here because we take very good care of them and they are protected. The lake has no public access and only has six families living on it. In the gravel pit by the lake we have planted and allowed this pit to grow up over the years with trees, berry producing shrubs and grasses for the wildlife that nest and live here. There are two ponds in the pit that frogs produce and live in also. We have 85 bird feeders out all winter and two heated bird baths. 65 feeders through the summer, feeding all year round. The Audubon Society comes to our home every year for the national yearly bird count. They have told me they see more species here than any where else. They have even asked me if they could bring in channel 2.

Now, to address the farming concerns. My husband and son have worked together planting and harvesting crops for many years. For years we raised beef cattle having as many as 62 head. Two years ago 40 acres off Sunrise Lake where these bald eagles nest was offered up for sale in 5 acre plots. It consists of 15 wooded acres and 25 acres field, and borders our farm on the north. Another 30 acres on our road was also offered up for sale. We purchased both these parcels for farming purposes, and to cut down on urban sprawl, and again, to protect the wildlife. We rent two other farms and farm the land, plus the acreage on our sons property, of which this gas line also runs across. Farming is operated in a manner using minimal tillage practices along with all the latest technologies in protecting water, wildlife and

humans. Our future plans of retirement were to turn the farm over to our son and family to keep farming. We planned to build a home on the new 40 acres and stay in active farming with our son.

If this project does go through we have no intentions to continue farming and driving heavy farm equipment under these power lines that even the cattle refuse to cross under, and are said to be dangerous to live around. We will be forced to move on depleating even futher loss of our Minn farms, beauty, recreational and tourism trades.

If, in fact NSP continues to want or need more corridors, they need to consider seriously using existing corridors to the far north such as plan A, or to the south such as plan B, These having the least amount of environmental and human interference.



WISCONSIN LEGISLATURE

P.O. Box 7882 • Madison, WI 53707-7882

March 25, 1997

Commissioners Cheryl Parrino, Dan Eastman, and Joe Mettner
Public Service Commission
610 N Whitney Way
Madison, WI 53707

Dear Commissioners Parrino, Eastman, and Mettner:

This letter is in regard to the proposed Chisago Transmission Line Project that would travel through the Taylors Falls/St. Croix Falls area.

We have been contacted by numerous constituents with concerns about the proposed project. One of the most commonly-expressed concerns is that there has been no documented need for the new transmission line. Newspaper articles cite the possible residential and commercial growth on both sides of the river and project that electric demand will increase significantly, but there is some confusion about where, specifically, the need for this project lies.

Some area residents are under the impression that Ashland will generate the demand, others have been told Hudson, while still others are under the impression that the St. Croix Falls area is projected as a long-term need area. In its analysis of this project, where, specifically, does the PSC believe the long-term need for this project lies? In short, which area of northwestern Wisconsin would the PSC cite as the "need area" in its analysis of this project?

If the PSC can target a need for the project to a certain area, what percentage shortfall does the commission expect to see in this area in the next ten years? How does that percentage compare to energy consumption in the recent past?

At this point, the need for this project has not been made apparent to our constituents or us. Perhaps a Targeted Area Plan would be of some assistance in looking at the long-term power needs of the area. If the PSC has not already completed such a project, we request that a Targeted Area Plan be completed. Such a plan makes sense because it promotes wise power planning and saves dollars if it can be proven that power line expansions are not needed in a certain area.

We thank you for your attention to this matter and look forward to your response. We expect to meet with area residents to discuss the Chisago Project some time in late April. Please contact our offices if you require additional information about this matter.

Sincerely,

Alice
ALICE CLAUSING
State Senator
10th District

AC/BD/rr

Bob
BOB DUEHOLM
State Representative
28th Assembly District

March 31, 1997

Mr. Chairman Herald,

It is my understanding that some amount of monetary compensation will be provided by NSP to those property owners living directly under the proposed power line pylons.

This money will be provided them as directed by the condemnation proceedings resultant from the state's power of eminent domain governing utility easement procurements.

Whatever consolation this enforced payment may be to these land owners for the perpetual taking of their land and the confiscation of the unimpeded enjoyment of their property in exchange for the dubious gift of the visual and electro-magnetic blight posed by NSP's utility masts, towers and pylons;

however fair in equity this exchange may be represented by the courts determining this compensation, it appears that an entire and entirely unrepresented class of injured and aggrieved claimants exists to whom no redress nor compensation shall ever be afforded under the anticipated condemnation proceedings required to secure rights of way for this project.

I refer to property owners living adjacent and contiguous to but not directly under the proposed power line easements.

Many of these citizens houses are located even closer to the proposed nuisance than the condemnees who will be compensated, however insufficiently, for the imposition of this line upon their properties.

Yet under the right of eminent domain these citizens are accorded no standing before the law nor are they accorded any hope of mitigation for the economic, esthetic and medical damages being inflicted upon them by this utility construction.

I bring this matter to your attention to point out the massive insult and injustice this project will impose upon an entire class of citizens who can never hope of any redress of injuries suffered. A class of citizens who will in fact out number those compensated

by a factor greater than 2 to 1 since those residing both to the immediate north and to the immediate south of this line will be equally and negatively impacted by this construction.

In light of this unhappy consideration, I must urge the EQB and the members of this committee to gravely consider the true and human costs of the NSP application to construct new power transmission routes through a county whose citizenry will in no way benefit from the effects of this proposed construction.

Thank you Mr. Chairman, Mr. Herald.

Mark Oberg
29505 Neal Ave.
Lindstrom Mn. 55045

April 6, 1997

Mr. Chairman Herald,

At last week's meeting, Mr. James Alders of NSP and Mr. Richard Herald of this committee claimed that we cannot afford to address the costs of environmental damage incurred by the power line through our county since similar increments of costs have also served to create the national deficit.

While neither you, Mr. Chairman, nor I nor anyone else in this room may be able to effectively confront the problem of deficit spending by the Federal Government, it HAS been represented to this task force that they may have some effect, however slight, upon the condemnations and constructions designed for the southern half of Chisago County.

Since you raise the question of costs, let us examine the history of NSP's investment of shareholder equity and rate payer liability in the creation of NSP's present generating capacity infrastructure.

Massive capital outlays were dedicated to the construction of block buster electrical facilities in Canada and North Dakota. These mega-monstrosities currently produce electrical capacity far in excess of demand required to meet needs in their local service areas.

This planned over-production itself has created its own problem.

NSP is now left with surplus commodity it cannot bring to market without the trespass and condemnation of properties in the front and back yards of half the constituencies of Chisago County.

The operative assumption throughout has been that local needs and supply problems may be left to fester and degenerate while new and ever increasing corridors are clear-cut and chemically defoliated over hundreds of miles of new routes to transmit bulk power at enormous loss of conductivity through load loss resistance over the entire length of the route.

Consequently this task force is being asked and required to approve a planning process undertaken by NSP which is inherently wasteful and destructive.

Meanwhile, local generating systems in Wisconsin have been allowed to deteriorate and decay. The Bayfront generator is portrayed by NSP spokesmen as a basketcase.

The Point Beach nuclear plant near Manitowoc is on shut down status due to chronic operator negligence discovered as a result of an hydrogen gas explosion last May, creating a 30 per cent. loss of capacity for nearly a million customers.

This plant is owned by the Wisconsin Energy Corporation, with whom NSP is eager to merge. Power utility regulators in both states have been tainted and compromised as a consequence of this deal in the works.

Given this brief but sordid historical synopsis, it is incumbent upon this committee to ask - Why?

Why was the crucial needs area in Wisconsin allowed to reach a situation—red while the minimal needs areas of North Dakota and Manitoba fattened and saturated with unneeded generation?

When and where was the decision made to dedicate our state and our county as an energy sewer devoted to the sluicing of surplus power to distant and far flung markets in the East?

Who made this decision, citizens, and who is being held accountable for the environmental consequences of this decision?

If we are indeed facing an energy deficit here, who should be made to pay the costs of this deficit?

Those who created it or those who suffer by it?

If a power monopoly cannot afford to assume the true human and environmental costs of its operation because of shareholder restraints, who then shall be asked to pay these costs for them?

Can we afford the continued care and feeding of a power octopus whose solutions perpetually create more problems than they purport to solve?

What in fact is the real agenda here?

NSP's Viking Gas transmission company is now proposing to dig up an 800 mile corridor again to lay triple the present capacity transmission from Manitoba to Evanston, Illinois in anticipation of the deregulation of the energy market.

I submit to you citizens and task force members that the present application to construct, while camouflaging itself as an errand of mercy to an afflicted and neglected rural population unable to provide for itself, is in fact merely the first leg toward opening up our county as an electrical super conductor and sewer to feed the growing appetite of the Chicago market.

I submit that this Chisago to Chicago route is envisioned primarily in the interests of shareholders anticipating the boon of deregulation and not, as has been repeatedly represented by the corporation and its regulators, as a quick if nasty fix to the problems they have sanctioned and overseen in the boom docks and pine barrens of sand country.

Given the facts and circumstances as they exist in the politics of power, I urge this committee to examine the motives behind this application.

I urge you to ask yourselves, what kind of solutions are you being asked to provide and approve, solutions coming as they do from the same consortiums who have created the very problems themselves by design and intent.

Thank you Mr. Chairman, Mr. Herald.



Mark Oberg
29505 Neal Ave.
Lindstrom Mn. 55045

April 14, 1997

257-6747

Mr. Chairman Herald, members of this committee,
citizens of the county:

We continue to sit here bickering and squabbling among ourselves because impending industry deregulation has sent NSP scrambling for a new power corridor to service the emergent Chicago energy market.

We sit here because, as it happens, this county stands in the way of this lucrative new power nexus like a plum for the plucking.

In simple economic terms, if the Chicago market is the eager john, then NSP is the willing streetwalker, or corridor prowler, in the present instance.

This county and this committee especially are being used as the pimps to arrange an official blessing and sanctioning of this long anticipated coupling.

As prologue to this union we witness the Wisconsin Public Service Commission which has presided over and is responsible for a crisis situation of dirty, dangerous nuke plants and obsolete, inefficient generating and distribution systems throughout their service area.

The Wisconsin Public Service Commission has stifled the growth of competitive local power companies in their state, notably by denying the Arrowhead-Arpin and Hoover-Hintz routes citing environmental concerns.

The solution they propose through our county conveniently exports their alleged environmental concerns to our backyard, a backyard over which they possess neither a shred of knowledge nor a scintilla of political accountability.

Having dumped the results of their negligence and malfeasance in our backyards, they turn turn ugly when we protest this dumping, accusing us of perpetuating the NIMBY or Not In My Backyard syndrome. According to this twisted and sickening bureacratic logic, it is a civic vice that we do not despoil ourselves. For if we refuse to despoil ourselves, they will simply go elsewhere and despoil the next fella.

Before we permit NSP and the Wisconsin Public Service Commission to use this county as a cheap date for eager and ardent suitors to the east, this committee would do well to examine the strategies and tactics employed by the corporations and regulators lobbying this proposal.

These highly paid mercenary lobbyists have waged an intensive and prolonged campaign of psychological warfare upon the volunteers of this committee.

The psychic club they wield over our heads is the conventional and convenient club of guilt.

Wisconsin has fouled its own nest;
therefore we are guilty, we are liable.

Therefore we owe them this route.

NSP has squandered its resources by over investing in unneeded power generation from the tundra to the far reaching prairies.
We are guilty, we are liable.

We owe this route to NSP's abused and agrieving shareholders.

Industry deregulation means Chicago's need exceeds and takes precedence over our own.

We are guilty, we are liable.

We owe this route to the free enterprise system.

And because we are guilty of the sins of the industry, so must we suffer and so must we pay.

Our punishment shall be to bear and to convey a myriad of twelve story wrought iron crosses from the beginnings of Lent to the Golgotha of the Apple River substation at the end of Amery.

Futhermore shall we erect these monuments at 900 foot interval stations-of-the-cross to stand in perpetuity as a memorial to our guilt and our transgressions against the power corporation and their friends on the Wisconsin Public Service Commission.

For contrary to what we believed going into this process, bad planning, inefficiency and waste is not our enemy. No.

Unrestricted exurban sprawl and slop over is not our enemy. No.

The corruption and collusion between energy regulators and power executives is not our enemy.

NSP and the Wisconsin Public Service Commission have identified the enemy and he is us.

And since we are the enemy, we must therefore be made somehow to vanquish ourselves.

We shall be made to take upon ourselves the responsibility of industry and regulator alike so that they may be held harmless and free of liability in the matter before this committee and before this county.

We shall do this meekly, nicely, passively and in all good faith as voluntary vassals of the corporation and the regulators for this is the duty they have allotted to us.

Not a single politician shall be informed or disturbed by this application since such notification might serve to compromise or embarrass them in their respective bailiwicks.

Nor shall a single citizen of this county be unduly or untimely notified of their impending condemnation, for that would be cruel and alarmist punishment of these insignificant wards of the state.

Nor not a single penny shall be disbursed by the corporation or by this commission to question the findings of the applicant, for that may lead to heresy and dissention.

And the best and the brightest minds of this county shall henceforth be impaneled and closeted incommunicado in this chamber until further notice so that this peace may kept and this order may be enforced.

We owe this obedience and this reverence to the applicant as acolytes of the new religion of Power.

For though once proud, we are now a vanquished and a humbled people, aquiescent and accomodating ourselves to the reality of our enslavement to the monopoly of Power.

Gentlemen of the Power Lobby, we who are about to die salute you. We congratulate you upon your success in the field of psychological warfare and your victories upon the battle places of techno babble.

As adversaries with unlimited resources and far reaching and deeply disturbing influence, you have proved yourselves worthy opponents in the struggle for Mom and Pop's family farm and for the seizure of little Johnny's backyard fantasy playground.

The field is yours.

Do with it your damndest, sirs!

Citizens of the committee, I trust that with the new consciousness you have been provided here, you will henceforth strive officiously following the example of your chairman to achieve the goals of the power corporation and their friends in the regulatory agencies to the best of your abilities, so help you Reddy Kilovolt.

Thank you Mr. Chairman, Mr. Herald.

Mark Oberg
29505 Neal Ave.
Lindstrom Mn. 55045



CHISAGO LAKES AREA SCHOOLS
INDEPENDENT SCHOOL DISTRICT #2144
13750 Lake Blvd
Lindstrom, MN 55045
(612) 257-5600 Facsimile: (612) 257-0529

Board of Education

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Chairman

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CHERYL FISH
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ZIMMERMAN
Director

April 21, 1997

Minnesota Environmental Quality Board
Citizen's Task Force

To Whom it May Concern:

I am Sherry Johnson, principal of Taylors Falls Elementary School and facilitator of the community committee that has overseen the development of the Bryant Environmental School Laboratory for the past 2 1/2 years. These 61 acres were donated to the Taylors Falls School District 17 years ago. As a result of our districts' combination, the land now belongs to the Chisago Lakes School District.

Presently, an NSP power line crosses the northeast corner of the site. As a result of discussions with NSP and John Hynes of the the Environmental Quality Board, it appears that there exist two possibilities for additional power to cross the Bryant site:

- 1) One possibility is a crossing at St. Croix Falls which could mean higher towers, bigger cable, and a larger tower footprint, replacing the present line.
- 2) The other is the selection of an alternate route bringing this new power elsewhere.

Our committee understands this second option could mean a substation may be needed on or near the Bryant site to supply the increasing power needs of our growing Chisago County.

As citizens of this area, we can appreciate the increased need for more power. However, we hold this Citizens' Task Force and the

Dr. Thomas Dickhudt
Superintendent

Heide Miller
Dir. of Business Svc.

Bonnie DeClercq
Curriculum Director

Robert Meyer
Community Ed Dir.

Minnesota Environmental Quality Board responsible for balancing the need to maintain natural areas and yet provide needed electrical power.

To ensure the maintenance of the Bryant Environmental School Laboratory, these are critical points to keep in mind:

- 1) Rule out danger to students in the presence of the electro-magnetic fields surrounding the power lines.
- 2) Preserve the basalt rock out-croppings. These are a rare geological characteristic worthy of our care.
- 3) Preserve the five-lined skink habitat on the Bryant site. In 1989 this skink was listed an endangered species by the Minnesota Department of Natural Resources. At present it's numbers have increased and it now has a "special concern" status. This skink has 5 lines down its back which end in an extra-ordinary bright, blue tail.
- 4) Construction time-lines and methods should be determined so as to impact as little as possible: student use of the site, animal life cycles, and disruption of the physical setting.
- 5) Plans for future care of the site should be developed with the Bryant Committee and local environmental officers (DNR, etc.). Plans may be created to the advantage of NSP and students, i.e. native prairie grasses vs. trees to avoid the need for clear-cutting under the line on a regular basis.

Our Bryant committee includes representation from many sources: the school district, area DNR officers, St. Olaf College's, School Nature Area Program staff, Chisago County Historical Society members, and Chisago County Soil and Water Conservation District staff. We look forward to working in cooperation with the EQB to determine the best way to resolve this power line issue and maintain our sensitive site.

Sincerely,

A handwritten signature in cursive script that reads "Sherryl L. Johnson". The signature is written in dark ink and is positioned above the printed name and title.

Sherryl Johnson
Principal, Taylors Falls Elementary
Facilitator, Bryant Committee

Our Bryant committee includes representation from many sources: the school district, area DNR officers, St. Olaf College's, School Nature Area Program staff, Chisago County Historical Society members, and Chisago County Soil and Water Conservation District staff. We look forward to working in cooperation with the EQB to determine the best way to resolve this power line issue and maintain our sensitive site.

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A handwritten signature in cursive script that reads "Sherryl L. Johnson". The signature is written in dark ink and is positioned above the printed name and title.

Sherryl Johnson
Principal, Taylors Falls Elementary
Facilitator, Bryant Committee

North St. Paul

Veterinary Hospital



2380 E. Highway 36, North St. Paul, MN 55109

Telephone (612) 777-8391

Environmental Quality Board
300 Centennial Office Building
658 Cedar St.
St. Paul, MN 55155

April 30, 1997

Attn. John P. Hynes, Project Leader
Larry Hartman, Public Advisor

Dear Board Members:

We own a 22 acre parcel of bare land in Sections 5 & 6 of Chisago Lakes Twp. bordering on Sunrise Twp., and in the corridor of a proposed route for the high voltage power line referred to as the Chisago Electric Transmission Project. We want you to be aware of how your choices and recommendations may affect our family.

We are "nature people" and love the outdoors lifestyle. We purchased this land in 1976 with hopes of building our retirement dream home here someday. Over the past 21 years we have worked long and hard to establish woodland trails, reforest portions of an open field, establish brush habitat and shelter screening from the road. The property borders on the Sunrise River with a beautiful overlook from a ridge studded with 100 year old huge white pine trees. We have a wide range of wildlife species, including a nesting pair of bald eagles, and have always encouraged good wildlife management practices.

If you toured our property, which I would invite you to do, I think you would agree that it is pristine and beautiful, and a treasure that should not be visually desecrated with a clear cut corridor lined by a high tower powerline. Should the decision be made to run the powerline over my property, I hope that NSP would purchase the entire parcel, as I would not build on the property, or be able to appreciate it in the same way.

I understand there are alternative corridors under consideration, and questions of whether this proposal is even needed or in the best interests of the citizenry. I would hope that if the decision is made to run a powerline, that it be run on an established corridor, rather than creating a new one.

Thankyou for your time and consideration.

Norman B. Purrington, Owner

Joan C. Purrington, Owner

Dear EQB Task Force
RE: NSP-DPC HVTL "Chicago Project"

May 5, 97

I accept the responsibility of the altered environment, the parasitic brown headed cowbird, invasive European buckthorn and other human enabled assaults on the natural world.

As a human, I can pluck the buckthorn, dispatch the cowbird and work to restore balance in my environment.

What I can't deal with is the purported need of man to conquer through consumption. NO great cost is laid on the backs of the over consumer. The conservative ethic has no teeth. Present day electrical usage (average 1500 kW a month) is anti-social. Familiar nods greet talk of ~~the~~ conserving resources. Familiar nods have no effective campaign. Legislators wine and dined on money can't see an equitable solution, so eminent domain, for the "public good" is evoked to impose the rights of the over consumer over the rights of the environmentally aware and consci^{ENTIOUS}ousness.

I would hope (fat chance) surcharges would be added to any electric bill over \$100.00 per mo. with the money used to wean people off of the Nuclear acid rain teat. I would demand that the best of NSP's conservation programs used in Minnesota presently be mandated in Wisconsin, like it or not. I would demand that the great electric water heater give away in Wis. be ended or that all forms of high-resistance heating be put on radio on/off controls. The over consumption of electricity by certain citizens will not force me to gag down their wastes (HV Transmissions lines).

The parasitic brown headed cowbird lays it eggs in the nest of some unwitting songbird and goes about it business unaware of the destruction it has wreaked. The parasitic consumer uses and uses and uses, forcing the meek to absorb the effluent disproportionately. At what point do the meek gather together and say enough is enough—Not in my backyard—Not in yours.

Paul Heinrich
1782 Leo Street
Centuria, WI 54824

May 19, 1997

Mr. Chairman,

The increased need for electricity in northern Wisconsin is 35 megawatts. NSP's proposed Chicago transmission line will convey 1,200 megawatts.

The discrepancy between these figures is 1,165 megawatts.

Now that the proposed merger between NSP and the Wisconsin Energy Corporation has been denied and is dropped by the applicants, NSF no longer requires the extra and undeclared need for 1,165 megawatts.

Now that FERC has shut NSP out as a player in the Chicago energy market, the need for a 1,200 megawatt conveyance through this or any other border county is void and nullified.

I suggest that this committee recommend to NSP that they drop this application from any future review by this committee or by the state.

Mark Oberg
Lindstrom

APPENDIX C

LIST OF PRESENTERS AND SUBJECTS

February 17, 1997

MAPP - Kandace Olson

Chisago Electric Transmission Project - Manny Castillo, NSP

February 26, 1977

Wisconsin Advance Plan - Dave Barger

March 3, 1997

Routing Tutorial - Bob Cupit

Proposed Routes - NSP

March 10, 1997

Wisconsin Advance Plan - Dave Barger and Bill Fannucchi, WI PSC

March 17, 1997

Chisago County Biological Survey - Hanna Dunervitz, DNR

Agencies involved in management of the St. Croix Scenic Riverway

MWBAC - Jim Harrison

Park Service - Tony Anderson, Park Superintendent

Corps of Engineer - Dan Seemon

Fish and Wildlife - Nick Rouse

Lower St. Croix Planning Task Force - Kate Hanson

WDNR - Terry Moe

MDNR - Steve Johnson

March 31, 1997

Alternate electrical solutions - NSP

Electric and Magnetic Fields - John Hynes

April 14, 1997

Report of the Subcommittee on route alternatives

TAP report by Cathy Martin

Dale Fredrickson - Arrowhead to Eau Claire

Arrowhead to Arpin - John Kappenman and Dave Van House, Minnesota Power

APPENDIX D

LIST OF HANDOUTS

1. Notebook
 - a. Charge
 - b. Draft Operating Procedures
 - c. Task Force members contact list
 - d. Public Participation in the Minnesota Transmission Line Routing Process
 - e. Members of the EQB and technical representatives
 - f. Statute and Rules
2. Chisago Electric Transmission Line Project Application and Appendices. NSP/DPC
3. The MAPP Regional Transmission System
4. MAPP map
5. Chisago Electric Transmission Project. NSP
6. Operating procedures - EQB Route Advisory Task Force
7. Excerpts from Basic Electrical Power Transmission by Anthony J. Pansini.
8. Chisago County Biological Survey - map and St Croix fact sheet
9. Wisconsin Advance Plan. Dave Barger, PSCW
 - a. Wisconsin Transmission Planning Process
 - b. Chronology of transmission planning in the interface area
 - c. Interface Transmission Report Study 3 - 1995
 - d. Interface Transmission Report Study 3 - Cost Analysis
 - e. Advanced Plan 7 Order - Dec. 1995
 - f. Advanced Plan 7 Order - Interface transmission lines - Sept. 1996
 - g. Advanced Plan 6 Order - Sept. 1992
 - h. Advanced Plan 5 Order - April 1989
 - i. Power Lines Pamphlets
 - j. Project review schedule
10. Northern Wisconsin Targeted Area Planning Study. NSP
11. Integrated Targeted Area Resource Planning. MSB Energy Associates for USDOE
12. Videotapes of the NSP Chisago Transmission Line, 8/96. NSP
13. Answers to 2/26/27 Questions of the MEQB Chisago Project RATF by Dave Barger, PSCW
14. Northern Wisconsin Load Forecasts
15. March 14, 1997 letter from David Barger with rate and bill impact analysis
16. March 17, 1997 fax from Bill Clark with recent comments to RUS
17. Transmission: Planning, Access, and Transfer Capacity - Advance Plan 7, Environmental Assessment Appendix E. PSCW
18. St. Croix Riverway Map and Guide
19. Minnesota-Wisconsin Boundary Area Commission Biennial Report 1995-1996
20. What You Need To Know About Permits. Corps of Engineers
21. Quick Answers To Some Endangered Species Questions - Federal Fish and Wildlife

22. Chisago County Biological Survey
23. St Croix fact sheet
24. List of Important Natural Areas - 1 copy
25. Land Protection Options - 5 copies (open space)
26. Management policy resolution, Upper St. Croix Management Commission
27. Riverway management policy resolution, Lower St. Croix Management Commission
28. Letter from MN DNR - July 11, 1997
29. Letter from WI DNR
30. Letter from Sherry Stirling, Chisago Soil and Water Conservation District - March 18, 1997. Also Mussels, Gators, and The Corps.
31. PCA Sunrise River tributary stream habitat quality assessment.
32. Birds and Forests, a management and conservation guide.
33. Alternate electrical solutions - NSP
34. Residential Electric and Magnetic Fields. Executive Summary. National Research Council. 1997
35. Health and Safety Digest, February 1997
36. Health and Safety Digest, page 14, January 1997
37. EMF in the Workplace. NIOSH, NIEHS, USDOE
38. Forward, executive summary, and overview of RAPID. December 1995
39. RAPID update, October 1996
40. EQB Findings, Conclusions, and Order, June 1996
41. Cows and electricity. Pages 35-36. Aversion to electric and magnetic fields. Jan Hultgren. 1989.
42. EMF - Electric and Magnetic Fields. Public Service Commission Wisconsin. 1994
43. Transmission Line Magnetic Field Profiles. EQB Staff. 1990.
44. A Summary of Issues Regarding the Inclusion of Electric transmission Lines on the St. Croix River Crossing - DOT
45. Project update - April 10, 1997. EQB staff
46. Report of the Subcommittee on route alternatives
47. TAP report by Cathy Martin
48. April 8, 1997 Memo from Department of Public Service - Impact of investment on a typical monthly bill.
49. Arrowhead to Eau Claire Alternative route, May 5, 1997 - Dale Fredrickson
50. Evaluation of Arrowhead to Eau Claire Route Alternative - NSP
51. EIA/EIS issues

APPENDIX E

BACKGROUND ON ALTERNATIVE ROUTES

OBJECTIVE

In response to its charge, the Task Force formed a subcommittee to consider route alternatives. A voluntary group held three public meetings separate from Task Force meetings with the intention of developing a route selection process which was based on planning principles which would answer questions of need and yet limit unnecessary incursions into the St. Croix River Valley.

ASSUMPTIONS

The subcommittee began its deliberations by recognizing that it was being asked to report on what is essentially a Wisconsin project which just happens to begin in Minnesota and that the scope of its review of alternative routes had been identified in planning documents included in the Wisconsin Public Service Commission's Advance Plan 7 record (Technical Support Document D23w). That record lists nine (9) alternative routes. Although the record of these nine viable alternatives was broader in geographic scope than the project proposed in the NSP/DPC application, it was clear that the additional alternative plans were each documented to solve the electrical need in northern and northwestern Wisconsin and should be considered. The north-south geographic range of these alternatives was the Arrowhead option near Duluth (crossing the St. Louis River) on the north and the Spring Creek-Alma option in the Red Wing to the Kellogg area (crossing the Mississippi) on the south. Since any St. Croix River crossings were seen as a routing impediment, it was determined that the first priority would be an inventory of existing crossings with an analysis of potential for combined crossings.

APPROACH

Initially, all known linear structures across the St. Croix River (27 total) were reviewed, including electric lines, petroleum pipelines, road bridges, railroads, and dams (Attachment H). After brief discussion, all non-functioning structures, such as the Nevers Dam and several abandoned railroad bridges, were eliminated because their status was expected to remain inactive and would likely be removed or allowed to deteriorate. The active railroad bridge south of Osceola and Highway 36/64 bridge at Stillwater were concluded to be both structurally incompatible for attachment of a pipe system and having difficult approaches for an underground application. It was further determined that the remaining railroad bridges would also be removed from consideration for combined crossings.

EXISTING AND PROPOSED BRIDGE CROSSING OPTIONS

Highway 70 Bridge

The Hwy 70 bridge between Rock Creek, MN and Grantsburg, WI was recently rebuilt in 1990 and conduit capable of containing a 161 kV transmission line was included in its design and construction. The additional cost of the design and construction was paid for by Northwestern Wisconsin Electric Company. This bridge is included in the Rock Creek-Washco (or Apple River) option below.

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Taylors Falls Bridge

The following excerpt is taken from a July 1986 Wisconsin PSC report entitled "Environmental Assessment for Five Transmission Line Crossings of the St. Croix River and Mississippi River", page 26.

The U.S. Highway 8 Bridge which crosses the St. Croix River between St. Croix Falls, Wisconsin and Taylors Falls, Minnesota was studied as a possible river crossing location for a new transmission line. To determine the feasibility of using this candidate corridor, the Wisconsin Department of Transportation (DOT) was consulted and provided the following information:

A. It would be feasible to install a transmission line cable on a highway bridge but the design would have to be closely evaluated to determine if it was compatible with the bridge structure.

A transmission line crossing on the Highway 8 bridge would pose severe right of way problems as a result of the necessity to lay underground cable through commercial and residential areas of the villages of St. Croix Falls and Taylors Falls. Therefore, a proposed crossing at this location would probably be met by strong political and social opposition from both sides of the river. Before a river crossing would be contemplated at this location, a thorough assessment would have to be made to determine the local sentiment toward such a project.

Osceola Bridge

The following excerpt is also taken from a July 1986 Wisconsin PSC report entitled "Environmental Assessment for Five Transmission Line Crossings of the St. Croix River and Mississippi River", page 29.

The Highway 243 Bridge at Osceola is a poor candidate for a transmission line crossing. On the Minnesota side of the river there is an approximate 0.25 mile wide floodplain that is occupied by a large wetland/slough area north of the highway and a public park and boat ramp immediately south of the highway. The road bed for the highway is elevated for most of the distance across the river valley. On the Wisconsin shore, the highway proceeds easterly away from the bridge along the face of a high steep gorge and then enters the village of Osceola. Osceola has considerable industrial and commercial development that extends easterly for some distance. This development would make it very difficult to establish an underground to overhead termination for a cable crossing. Because of the above factors, a cable crossing on the bridge would be the only possible alternative at this location and even the cable alternative would be most difficult to install.

The assumptions in the 1986 report appear to still apply to both the Taylors Falls and Osceola Bridge locations. Both bridge crossings are very scenic and construction disturbance would be significant, particularly in the summer season. Even with masterful mitigation of impacts, an underground option in these locations would negatively affect the quality of the areas for many years.

Proposed Stillwater Bridge

Due to the continuing litigation and uncertainties associated with the proposed new bridge at Stillwater, specifics of an integrated transmission line and bridge option were unavailable. However, the concept was recognized as a potential opportunity and was discussed in a series of meetings in 1996 involving NSP and state and federal agencies. The product of those meetings was a September 18, 1996 MNDOT report, "A Summary of Issues Regarding the Inclusion of Electric Transmission Lines on the St. Croix River Crossing" which concluded such a combined crossing was feasible. In any case, such a plan could not be implemented pending resolution of permit issues and litigation. If the timing of the bridge and transmission line construction, as well as permitting, could be dovetailed, it could be a feasible option. Other recognized options include an under river route adjacent to the bridge and attachment to the bridge after its construction. The cost of attachment to the bridge, not including the approaches, was estimated at approximately \$5 million.

The approaches and continuing routes depend on the final alignment of any bridge. It appears that the terminus on the Minnesota side would be within one mile of the existing King Substation, and new routes on the Wisconsin would be needed for one to two miles to tie to the existing east-west 115 kV Pine Lake right-of-way.

Further study of the proposed Stillwater bridge crossing needs to be considered. Electrically it is the same proposal as the King Plant proposal. Physically, if it was selected as the favorable route, the transmission line would "piggyback" on a crossing for another use, thus combining crossings of the wild and scenic river and minimizing the potential for the additional environmental impacts created by numerous utility and bridge crossings.

Advantages to pursuing this option include shared engineering and construction costs as part of the bridge planning and construction process. Additionally, having the route cross as part of the bridge would eliminate the need for creating a new underground or above ground crossing of the St. Croix elsewhere.

Requiring that MNDOT include the planning and engineering for carrying power lines on the Stillwater bridge whether that capability is used immediately would set a precedent for including lines on all bridges in the future. Having this capability included on bridges as a standard inclusion would aid power companies in upgrading their systems more easily, and in a less damaging manner environmentally and historically, then what occurs with an overhead or underground crossing of rivers.

Additional advantages connected with the Stillwater Bridge crossing involve the capability of using existing easements with only short extensions creating new easements where necessary. The King Plant would be a strong source of power for this crossing, backup for reliability can be created by tying into the North Branch/Chisago County substation using existing easements and by the remainder of the metro grid. This would lower the potential vulnerability to the system to storms and interference and increase reliability.

Appendix E-4

Finally, the Stillwater Bridge crossing deserves further in-depth consideration because its potential for combining traffic and power crossings. Pursuing further study of this option would create a precedent for combining uses and for requiring inclusion of power lines into all bridge planning. Choice of the Stillwater Bridge option would decrease the amount of intrusion into the St. Croix riverway and meet one of the objectives of the task force. By including this option as one of the routes for further study a message would be sent to MNDOT regarding cooperation and the task force would meet their objective of "no new crossings unless a combined use," and "no new easements for routes unless to interconnect from one existing easement to another."

I-94 Bridge

This option would utilize the existing Interstate 94 dual-bridge crossing south of Hudson, Wisconsin. This crossing was evaluated for a 345 kV project in 1981, and, though dated, the record of that project is helpful in again considering joint use of this corridor. Both attachment to the bridge and an adjacent under river design were determined to be feasible for that project, and are presumed to still be feasible for a 230 kV design. The 1981 project analysis had a route east from the bridge crossing that paralleled I94 most of the way to Eau Claire, WI. This would still be feasible.

REVIEW OF WISCONSIN SYSTEM PLANS

The remaining nine options evaluated in Wisconsin's Advance Plan 7 process were then reviewed and several were combined based on information provided to the Task Force by NSP and DPC. The five resulting plans were then reviewed. The discussion of each is summarized below. Two design features are common to all options: Each would require a new 161 kV line in Wisconsin from Stone Lake to Bayfront substation and the upgrade of the 69 kV transmission lines supporting the distribution system in Chisago County and Polk County, WI. The upgrade could be either increasing the size of the conductors or increasing the voltage to a maximum of 115 kV. NSP confirmed that the Chisago County upgrades could entirely follow the existing transmission line corridors.

Rock Creek-Washco (or Apple River) 230 or 161 kV

This alternative is a modification of Transmission Plan E from the Wisconsin planning process. Instead of the source in Minnesota being a new substation at Sandstone (or at Rush City as in earlier plans), the source would be Rock Creek. Presumably the Rock Creek substation was not anticipated at the time the planning was being done, or the near term needs of Northwestern Wisconsin Electric Company were immediate and considering a dual purpose project was not workable. Regardless, NSP states that Rock Creek is an electrical equivalent for planning purposes and that Rock Creek substation would work. The electrical/routing implications will require further study for the Wisconsin portion of the line. At this point, we will assume a 230 kV line from Rock Creek substation to Washco or to Apple River substations.

The NWECC project is underway. The Rock Creek substation is under construction, but is not yet connected to the existing north-south 230 line. The 69 kV line is not yet constructed, though some right-of-way work appears to have begun on the WI side.

Appendix E-5

Presumably, the project will be completed in summer 1997, though apparently there are reported complications with right-of-way acquisition.

The Rock Creek sub is located three miles west of the St. Croix River and adjacent on the north to MN Highway 70. NSP was granted an exemption from the Power Plant Siting Act for the sub in 1996, based on an EQB finding that the sub would not cause significant environmental effects. The 69 kV line was exempt from environmental review in Minnesota. The sub is several hundred yards north of the highway. This analysis will assume a double circuit 230-69 kV line or 230/69 kV underbuild, though a 161 kV line was the basis for earlier review and may be adequate after further review. The line route in Minnesota would follow Highway 70 to the river along the same right-of-way as the soon to be built 69 kV line. The route approaches the river on the north side of the highway. Current plans are to drill an underground 69 kV cable under the river, beginning just west of the parking lot of the visitors center, and exiting east of a boat landing on the Wisconsin side. There is information about the 230 kV/69 kV in the record of the Wisconsin PSC permitting process for the project.

While the initial assumption is that the approved 69 kV new construction could and should share overhead structures and right-of-way on either side of the river, the river crossing itself could be achieved by either directional drilling a joint or separate system for 230/69 kV, or use of pipe conduits for the 230 kV line which were incorporated into the bridge design when it was constructed in 1990. Further analysis is necessary to understand the specifics of design options and potential environmental effects.

Continuation of a route on the Wisconsin side has been very generally reviewed in the PSCW planning process. It appears to be feasible to share right-of-way for most of a route to either the Washco substation (directly east) or the Apple River substation (east then south). Additional consultation with the PSCW will be necessary to confirm route impact implications. At this time there do not appear to be any features which would cause this alternative to not be considered further.

(Note: The Highway 70 bridge crossing was not considered in the 1986 study of potential river crossing, because it was north of the study area.

Arrowhead-Arpin 230 kV/Arrowhead-Eau Claire 230 kV

This option was labeled Plan A in the Wisconsin planning process. The initial plan considered a route 210 miles in length, from the Arrowhead substation west of Duluth, MN to the Arpin substation in central Wisconsin. The route does cross several rivers and wetland areas, however sensitive routing of the line along with corridor sharing could lessen impacts. The routing elements of the plan were addressed in various Wisconsin planning documents. The record establishes that the route has potential to corridor share with existing transmission line, pipeline and railroad rights-of-way for nearly 100 percent of its length. Peer review of the route proposed by Madison Gas and Electric, Minnesota Power, Wisconsin Power and Light and Wisconsin Public Power, Inc. indicates that the design techniques utilized in this corridor study "have the potential to set a new industry standard for Environmental Analysis," and are "precedent setting as a utility sponsored environmental study." Regardless of the ultimate preferred route, the Task Force feels

Appendix E-6

that this approach to routing transmission lines should be utilized to minimize adverse environmental effects.

Subsequent presentations and discussion by the subcommittee indicates that adjustments to the plan could result in a somewhat shorter total route terminating at Eau Claire that would still provide the needed capacity. This needs to be confirmed as it has not been reviewed in any of the Advance Plans. The major advantage of this route is the paralleling existing transmission lines for 100% of its length.

The Minnesota section of either route could parallel or be double-circuited with an existing 115 kV line for approximately 12 miles, angling southeast to cross the Wisconsin state line at the St. Louis River and near Oliver, Wisconsin.

King-Pine Lake, Red Rock-Crystal Cave 115 kV Conversion to 161 kV

Plan B of the Wisconsin planning process satisfied the projected need in northwestern Wisconsin by making relatively minor additions to the existing King-Pine Lake 115 kV line, which is designed to operate at 161 kV, and to the existing Red Rock-Crystal Cave 115 kV, which is also designed to be easily upgraded to 161 kV. Other system additions in Wisconsin are also necessary, of which the most significant would be the addition of a new 161 kV circuit line along an existing 161 kV line from Pine Lake to Apple River, a distance of 26 miles. The new circuit could be combined on new structures as a double-circuit, replacing the existing single circuit, or could parallel the existing line on separate structures, but sharing right-of-way.

Spring Creek to Alma

This plan involved rebuilding an existing 69 kV from the Spring Creek Substation in Red Wing, MN to the Alma Substation near Alma, WI to 161 kV (All new structures, conductors and insulators on a wider right-of-way, possibly double circuit with the 69 kV circuit retained). Also, a second Pine Lake-Apple River 161 kV circuit and the Stone Lake-Bay Front 161 kV are needed.

Spring Creek substation is in Red Wing, Minnesota and the Alma substation is on the Wisconsin side of the Mississippi River downriver from Wabasha, Minnesota. The existing 69 kV line between these two substations is 52 miles, 36 in Minnesota and 16 in Wisconsin.

From Spring Creek substation, the 69 kV line follows Hwy. 61 east through the business district of Red Wing. Another 69 kV line exits the substation to the south and circles east through a dense residential area to intersect the first 69 kV line. This second line could be an alternative, though is two miles longer, adding two miles to the 36 total in Minnesota. The route then appears to generally follow the parallel Hwy. 61/railroad corridor down to Frontenac. This area along the edge of the Mississippi River floodplain is very hilly terrain, though the transportation corridor is generally a level grade, in places built along or through backwaters or ponded areas adjacent to the river, as well as through cuts in steep slopes. There are sparse but closely built residences and commercial buildings along this stretch. Two trout streams may be crossed, Wells Creek near

Appendix E-7

Frontenac is one. The line continues southeast cross-country to Lake City, where it in-and-outs to a city substation. The 161 kV line would presumably not have to make this tap. The line then angles east to generally follow the contour of Lake Pepin at an average 1 to 2 mile distance away, and almost entirely cross-country (not along roads). This area is behind the bluff line of the river and is mostly agriculture, with numerous wooded ravines. It is also karst subsurface, implying the engineering allowances necessary in construction design.

The line then taps the Wabasha substation crosses the Mississippi River to the Nelson Substation and proceeds through Wisconsin to Eau Claire. Another 69 kV line goes from the Nelson Substation to the Alma Power Plant Substation along the Wisconsin side of the river. The river crossing rebuild will be of great interest to state and federal river agencies, focusing on endangered species, avian migrations, riverine habitat, etc.

Almost the entire route from Red Wing to the river crossing is shown to be within the Richard J. Doer Memorial Hardwood Forest.

An alternative to the Wabasha river crossing is the 161 kV line crossing south of Kellogg, MN. This would require a new electric right-of-way along Hwy. 61 or the parallel railroad south through Kellogg, Minnesota to join the Alma-Rochester 161 kV line, then following it east as a double-circuit to cross the river right at Alma. This roughly adds 10 miles of length in Minnesota, so that if this southern alternative and the northern alternative at Red Wing were used, the line length in Minnesota would be 48 miles (36 + 2 + 10).

This option has the potential for substantial environmental impacts and does not have any advantage over other options.

Appendix E-7

Frontenac is one. The line continues southeast cross-country to Lake City, where it in-and-outs to a city substation. The 161 kV line would presumably not have to make this tap. The line then angles east to generally follow the contour of Lake Pepin at an average 1 to 2 mile distance away, and almost entirely cross-country (not along roads). This area is behind the bluff line of the river and is mostly agriculture, with numerous wooded ravines. It is also karst subsurface, implying the engineering allowances necessary in construction design.

The line then taps the Wabasha substation crosses the Mississippi River to the Nelson Substation and proceeds through Wisconsin to Eau Claire. Another 69 kV line goes from the Nelson Substation to the Alma Power Plant Substation along the Wisconsin side of the river. The river crossing rebuild will be of great interest to state and federal river agencies, focusing on endangered species, avian migrations, riverine habitat, etc.

Almost the entire route from Red Wing to the river crossing is shown to be within the Richard J. Doer Memorial Hardwood Forest.

An alternative to the Wabasha river crossing is the 161 kV line crossing south of Kellogg, MN. This would require a new electric right-of-way along Hwy. 61 or the parallel railroad south through Kellogg, Minnesota to join the Alma-Rochester 161 kV line, then following it east as a double-circuit to cross the river right at Alma. This roughly adds 10 miles of length in Minnesota, so that if this southern alternative and the northern alternative at Red Wing were used, the line length in Minnesota would be 48 miles (36 + 2 + 10).

This option has the potential for substantial environmental impacts and does not have any advantage over other options.

CHAPTER 6133

DEPARTMENT OF NATURAL RESOURCES

RESTITUTION VALUE FOR FISH AND WILDLIFE

6133.0010 STATUTORY AUTHORITY.
6133.0020 DEFINITIONS.
6133.0030 GAME BIRDS.
6133.0040 BIG GAME.
6133.0050 SMALL GAME.

6133.0060 ENDANGERED ANIMAL SPECIES.
6133.0070 THREATENED ANIMAL SPECIES.
6133.0080 GAME FISH.
6133.0090 MINNOWS.

6133.0010 STATUTORY AUTHORITY.

Pursuant to Minnesota Statutes, section 97A.345, the restitution values to the state of species of wild animals listed in this chapter are prescribed as indicated.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0020 DEFINITIONS.

Subpart 1. **Scope.** For the purposes of this chapter, the following terms have the meanings given them, unless otherwise provided.

Subp. 2. **Big game.** "Big game" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 3.

Subp. 3. **Endangered animal species.** "Endangered animal species" are those animals designated as endangered in part 6134.0200.

Subp. 4. **Fur-bearing animals.** "Fur-bearing animals" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 22.

Subp. 5. **Game birds.** "Game birds" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 24.

Subp. 6. **Game fish.** "Game fish" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 25.

Subp. 7. **Minnows.** "Minnows" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 29.

Subp. 8. **Small game.** "Small game" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 45.

Subp. 9. **Sunfish.** "Sunfish" has the meaning given in Minnesota Statutes, section 97A.015, subdivision 46.

Subp. 10. **Threatened animal species.** "Threatened animal species" are those animals designated as threatened in part 6134.0200.

Subp. 11. **Trophy animal.** "Trophy animal" is defined for deer, elk, and moose as an animal with antlers that meet or exceed the score specified in items A to D when measured using the Boone and Crockett Club's official scoring system for North American big game trophies (Nesbitt, W.H. and J. Reneau, eds., Records of North American Big Game, Ninth Edition, The Boone and Crockett Club, Dumfries, VA, 1988, 498 pp.). This scoring system is incorporated by reference and is available through the Minitex interlibrary loan system and is not subject to frequent change:

- A. white-tailed deer (typical), score of 135;
- B. white-tailed deer (nontypical), score of 160;
- C. moose, score of 145; and
- D. elk, score of 260.

Trophy animal is defined for black bear as an animal with a skull that meets or exceeds a score of 20 using the Boone and Crockett Club's official scoring system for North American big game trophies (id.)

For the purposes of this chapter, antlers or skulls may be measured at any time; no drying period is required.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0030 RESTITUTION VALUE FOR FISH AND WILDLIFE

542

6133.0030 GAME BIRDS.

The restitution values for game bird species are as follows:

- A. turkey (wild), \$400;
- B. pheasant, \$50;
- C. quail, \$50;
- D. chukar partridge, \$50;
- E. gray partridge, \$50;
- F. ruffed grouse, \$50;
- G. sharp-tailed grouse, \$50;
- H. spruce grouse, \$50;
- I. greater prairie chicken, \$500;
- J. American woodcock, \$50;
- K. common snipe, \$50;
- L. sora, Virginia rails, \$50;
- M. gallinules, \$50;
- N. coot, \$25;
- O. ducks and mergansers, except canvasback, \$50;
- P. canvasback, \$200;
- Q. geese, \$50;
- R. tundra swan, \$200; and
- S. trumpeter swan, \$3,000.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0040 BIG GAME.

Subpart 1. **General.** The restitution values for big game species are as follows:

- A. deer, \$500;
- B. elk, \$1,000;
- C. caribou, \$1,000;
- D. moose, \$1,000;
- E. pronghorn antelope, \$500; and
- F. black bear, \$400.

Subp. 2. **Adjustments for trophy animals.** The restitution values for deer, elk, moose, and bear may be increased to twice the amount listed in subpart 1 if the animal is a trophy animal.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0050 SMALL GAME.

The restitution values for small game species other than game birds are as follows:

- A. cottontail rabbit, \$20;
- B. jack rabbit, \$20;
- C. snowshoe hare, \$20;
- D. fox and gray squirrel, \$20;
- E. red and gray fox, \$30;
- F. wolverine, \$1,000;
- G. badger, \$100;
- H. otter, \$100;
- I. pine marten, \$100;
- J. fisher, \$100;

- K. mink, \$30;
- L. raccoon, \$30;
- M. beaver, \$30;
- N. muskrat, \$30;
- O. opossum, \$30;
- P. bobcat, \$100;
- Q. lynx, \$500; and
- R. cougar, \$1,000.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0060 ENDANGERED ANIMAL SPECIES.

The restitution values for endangered animal species are as follows:

- A. mammals and birds, \$4,000; and
- B. all other animals, \$2,000.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0070 THREATENED ANIMAL SPECIES.

The restitution values for threatened animal species are as follows:

- A. mammals and birds, \$2,000; and
- B. all other animals, \$500.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0080 GAME FISH.

Subpart 1. **General.** For fish species that do not have a designated quality size, or for fish that have a total length equal to or less than the designated quality size, the restitution value is the base value shown in the following table. For fish that have a length that exceeds the designated quality size, the restitution value is the base value plus \$10 for every inch over the quality size.

	Base Value	Quality size in inches
A. Walleye	\$ 30	22
B. Sauger	30	15
C. Northern pike	30	32
D. Black bass (largemouth, smallmouth)	30	16
E. Sunfish (bluegill, pumpkinseed, green sunfish, orange spotted sunfish, longear sunfish, warmouth, hybrid sunfish)	5	8
F. White and black crappie	5	11
G. Yellow perch	5	12
H. Rock bass	5	8
I. White bass, yellow bass	5	9
J. Channel catfish	10	26
K. Flathead catfish	25	28
L. Chinook salmon	50	28
M. Coho, Atlantic salmon	30	20
N. Kokanee, pink, other salmon	30	17
O. Lake trout	50	22
P. Splake	50	15

are as follows:

for deer, elk, moose,
the animal is a trophy

ds are as follows:

Q. Brook trout	30	17
R. Brown trout	30	21
S. Rainbow (steelhead) trout	30	23
T. Paddlefish	500	
U. Lake sturgeon	500	
V. Shovelnose sturgeon	200	
W. Sturgeon hybrids	same value as morphologically nearest parent	

Subp. 2. **Muskellunge.** The restitution values for muskellunge are as follows:

- A. 0 to less than 30 inches, \$40;
- B. 30 to less than 40 inches, \$200;
- C. 40 to less than 50 inches, \$500; and
- D. 50 inches and over, \$1,000 plus \$100 for each inch over 50 inches.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

6133.0090 MINNOWS.

The restitution values for minnows are as follows:

- A. cyprinidae, fair market value at time of violation;
- B. umbridae, 50 cents a pound;
- C. catostomidae, 50 cents a pound;
- D. bullhead (7 inches or less), 50 cents a pound;
- E. cisco (7 inches or less), 50 cents a pound;
- F. lake whitefish (7 inches or less), \$1 a pound;
- G. goldeyes and mooneyes (7 inches or less), 50 cents a pound; and
- H. leeches, fair market value at time of violation.

Statutory Authority: *MS s 97A.345*

History: *16 SR 93*

APPENDIX G

CALCULATED COSTS PER ELECTRIC METER



Public Service Commission of Wisconsin

Cheryl L. Parrino, Chairman
Daniel J. Eastman, Commissioner
Joseph P. Mettner, Commissioner

Jacqueline K. Reynolds, Executive Assistant
Lynda L. Dorr, Secretary to the Commission
Steven M. Schur, Chief Counsel

March 14, 1997

Mr. John Hynes
Minnesota Environmental Quality Board
658 Cedar St.
St. Paul, MN 55155

Re: Chisago Transmission Project
Revised Rate & Bill Impact Analysis

Dockets 4220-CE-155, 1515-CE-102

Dear Mr. Hynes:

Attached is a worksheet that provides information about the rate impact and bill impact of additional construction costs, to replace the information I provided earlier about this. I apologize for any confusion the previous information created. Please provide this information to the members of the Route Advisory Task Force for the Chisago Transmission Project, and inform them that this information is a guide, not a definitive calculation.

Sincerely,

A handwritten signature in cursive script that reads "David Barger".

David J. Barger
Senior Engineer

DJB:\C:\WP51\WPDOCS\CHISAGO\HYNES01.LTR

Attachment

CHISAGO TRANSMISSION PROJECT

RATE and BILL IMPACT ANALYSIS (1997 Test Year)

Bill Impact When Applied to **All** NSP-Wisconsin Customer Classes

Bill Impact For **\$1,000,000** Additional Construction Cost

\$1,000,000 x 18% carrying charge :	\$180,000
\$180,000 x 15% NSP-Wisconsin share = NSP Wisconsin cost :	\$27,000
\$27,000 / 5,103,764,500 kwh = \$/kwh rate increase :	\$0.00000529

Annual Rg-1 Customer (Residential) bill increase

Low Use: 150 kwh per month x 12 months x \$0.00000529/kwh :	\$0.0095
Average Use: 700 kwh per month x 12 months x \$0.00000529/kwh :	\$0.0444
High Use: 2,700 kwh per month x 12 months x \$0.00000529/kwh :	\$0.1714

Bill Impact For **\$20,000,000** Additional Construction Cost

Annual Rg-1 Customer (Residential) bill increase

Low Use: \$0.0095 x 20	\$0.19
Average Use: \$0.0444 x 20	\$0.89
High Use: \$0.1714 x 20	\$3.43

Bill Impact When Applied **Only** to **Rg-1 (Residential)** NSP-Wisconsin Customer Class

Bill Impact For **\$1,000,000** Additional Construction Cost

\$1,000,000 x 18% carrying charge :	\$180,000
\$180,000 x 15% NSP-Wisconsin share = NSP Wisconsin cost :	\$27,000
\$27,000 / 1,334,724,000 kwh = \$/kwh rate increase :	\$0.00002023

Annual Rg-1 Customer (Residential) bill increase

Low Use: 150 kwh per month x 12 months x \$0.00002023/kwh :	\$0.0364
Average Use: 700 kwh per month x 12 months x \$0.00002023/kwh :	\$0.1699
High Use: 2,700 kwh per month x 12 months x \$0.00002023/kwh :	\$0.6554

Bill Impact For **\$20,000,000** Additional Construction Cost

Annual Rg-1 Customer (Residential) bill increase

Low Use: \$0.0364 x 20	\$0.73
Average Use: \$0.1699 x 20	\$3.40
High Use: \$0.6554 x 20	\$13.11

Annual NSP-Wisconsin Rg-1 Customer (Residential) Bills Without Added Costs

Low Use: 150 kwh per month	\$177
Average Use: 700 kwh per month	\$607
High Use: 2,700 kwh per month	\$2,171

Note: Rate Impact to non-NSP-Wisconsin Customers would be similar.

Dave Barger - PSCW 3/14/97

DEPARTMENT: Public Service

SF-00006-05 (4/86)

STATE OF MINNESOTA

Office Memorandum

DATE: April 8, 1997

TO: Al Krug

FROM: Eilon Amit

PHONE: 296-7476

SUBJECT: **Impact of investment on a typical monthly bill**

Q. For every additional \$1,000,000 in construction cost, what would be the additional cost for a typical customer bill?

A. The following assumptions are made:

1. The carrying charge is 18 percent.
2. NSP-Minnesota represents 85 percent of NSP-Company's total load.
3. A typical customer consumes 1,500 kWh per month and pays a monthly bill of \$102.71.
4. NSP-Minnesota's 1997 revenue requirements are \$1,666,332,000. (Department's analysis in the Primergy case.)

Based on these assumptions, the incremental cost to a typical customer is calculated below:

1. The annual incremental customers cost is $\$1,000,000 \times .18 = \$180,000$.
2. NSP's customers share of this incremental cost is $\$180,000 \times .85 = \$153,000$.
3. This incremental cost is .0092 percent of NSP-Minnesota's total revenue requirements.
4. For \$20,000,000 of an additional investment, the NSP-Minnesota revenue requirements will increase by $20 \times .0092 = .18$ percent.
5. Applying this increase to a typical monthly bill, the resultant increase in the monthly bill will be $.0018 \times 102.71 = \$18$.

/jd



APPENDIX H

Crossings of the St. Croix River

	Type of Crossing	Location
1.	WI 35 bridge	Riverside, WI
2.	Railroad bridge - Soo Line	Danbury, WI
3.	MN 48 WI 77 bridge	Hinckley to Danbury, WI
4.	Railroad	abandoned - near Pine/Chisago County line
5.	69 kV N/W Wisconsin Electric (under river)	MN 70 WI 70 Grantsberg
6.	Pipeline - Northern Natural (under river)	MN 70 WI 70 Grantsberg
7.	MN 70 WI 70 bridge	Grantsberg
8.	69 kV - 0736 NSP - on dam	Scandia to St. Croix Falls
9.	US 8 bridge	Taylors Falls
10.	Pipeline - Viking (under river)	1½ miles below Taylors Falls
11.	MN 243 bridge	Osceola
12.	Railroad	Abandoned - below Osceola, above WI Central
13.	Railroad bridge - Wisconsin Central	4 miles below Osceola
14.	Pipeline - Northern Natural (under river)	Near Copas
15.	Railroad bridge - Wisconsin Central	6 miles above Stillwater
16.	MN 36 proposed bridge	Stillwater to Houlton, WI
17.	115 kV - 0800 NSP	King to Pine Lake (Crossing capable of operation at 161 kV. Double circuited with #18)
18.	23 kV - 0770 NSP	Oak Park to Hudson (Crossing capable of operation at 161 kV. Double circuited with #17)
19.	Railroad bridge - Chicago and Northwstrn	Hudson
20.	Pipeline - Northern Natural (under river)	Hudson
21.	23 kV - 0414 NSP	Oak Park to Hudson
22.	I 94 bridge	Hudson
23.	115 kV - 0817 NSP	Red Rock To Crystal Cave
24.	Pipeline - Williams Bros (under river)	North of Afton
25.	345 kV - 0981 NSP	Red Rock to Eau Claire
26.	U. S. 10 bridge	Prescott
27.	Railroad bridge	Prescott

APPENDIX I

CORRESPONDENCE WITH COMMISSIONER DENN DEPARTMENT OF TRANSPORTATION

Environmental Quality Board Route Advisory Task Force

April 21, 1997

James Denn, Commissioner
Department of Transportation
411 Transportation Building
St. Paul, MN 55155

Dear Commissioner Denn,

The Minnesota Environmental Quality Board is in the process of reviewing an application for route designation and construction permit of a high voltage transmission line submitted by Northern States Power Company and Dairyland Power Cooperative (EQB document NSP-TR-4). It is referred as the Chisago Electric Transmission Line Project. The proposed 230/115 kV line extends from western Chisago County, through Taylors Falls, MN, and on to Amery, Wisconsin. A second portion of this project is entirely in north central Wisconsin. A requirement in this process is the establishment of a citizen Route Advisory Task Force for the purpose of offering alternative routes that may better serve the diverse interests of all affected parties. This Task Force has been meeting since February 1997 and has taken their charge quite seriously.

Several items have become apparent to the Task Force through presentations and documents from many public agencies.


- 1) The predominant need for the project is in northern and western Wisconsin.
- 2) Constructing any new crossing over the St. Croix Scenic Riverway is undesirable.
- 3) Opening new corridors for the HVTL will present greater environmental challenges than would sharing of existing HVTL or other corridors.

The Task Force has reviewed *A Summary of Issues Regarding the Inclusion of Electric Transmission Lines on the St. Croix River Crossing* authored by the Minnesota Department of Transportation (Mn/DOT) on September 18, 1996. The background section on page 1 states that "(Mn/DOT) is open to cooperating with public utilities to consider corridor sharing requests" and the conclusion on page 6 restates "Mn/DOT and the Wisconsin DOT have expressed a willingness to work with NSP if the utility is interested..." in constructing a transmission line on or adjacent to a new bridge.

The report in essence also states, on page 6, that time to redesign the bridge would be needed to pursue corridor sharing with utilities. Since the bridge project is currently delayed, the Task Force requests that Mn/DOT reconsider designing the bridge to accommodate an HVTL. This could result in a partnership between the proposed bridge project and the current or even future transmission line project(s). Working together we may be able to mutually address the infrastructure needs, public concerns, and environmental impacts.

For additional information, please contact EQB staff person John Hynes at 296-2871 or the Task Force chair Richard Herold at 465-3562.

Sincerely,


Dana Adair

Member-EQB Advisory Task Force for the Chisago Project

Copies: M. Castillo-NSP

Dan Dorgen-Mn/DOT



Minnesota Department of Transportation

Transportation Building
395 John Ireland Boulevard
Saint Paul, Minnesota 55155-1899

May 9, 1997

Mr. Dann Adair
EQB Route Advisory Task Force
300 Centennial Building
St. Paul, Mn 55155

Dear Mr. Adair and Task Force Members:

Thank you for your letter of April 21 regarding the proposed project to route a High Voltage Transmission Line (HVTL) across the St. Croix River. In that letter you indicate, "...Since the bridge project is currently delayed, the Task Force requests that Mn/DOT reconsider designing the bridge to accommodate an HVTL."

We are optimistic that the delay with the St. Croix River bridge project will be very brief. We are pursuing steps in Federal court which we hope will come to a decision soon. We are confident we will prevail, and will move ahead to complete this long planned and studied river crossing in a timely fashion.

We see little that has changed since the September, 1996 Mn/DOT report you cited. The report remains a fair and accurate assessment of our willingness to work with the interested parties, and all of the considerations discussed in the report still apply. To initiate any redesign effort, we would have to receive a request from the utility involved, including a financial commitment. To date we have no such request. Also, as noted in the 1996 report, we have a number of safety and operational concerns which would have to be addressed. A final decision on the acceptability of including an HVTL on the bridge is dependent upon the completion of a thorough study directed at these concerns.

The decision on the route for the proposed transmission line will not be made by the Environmental Quality Board until completion of the process in which you are participating, which will take more than a year. With the absence of a request and financial commitment from the utility, the uncertainty of the route designation, the lack of fit between project schedules, and other reasons as contained in the 1996 report, we cannot undertake a redesign of the bridge to carry an HVTL at this time. However, should these issues be resolved in a time frame that accommodates Mn/DOT schedules, we would be willing to work with NSP and the Task Force in order to determine the most prudent HVTL location.

Sincerely,

A handwritten signature in dark ink, appearing to read 'James N. Denn'.

James N. Denn
Commissioner

APPENDIX J

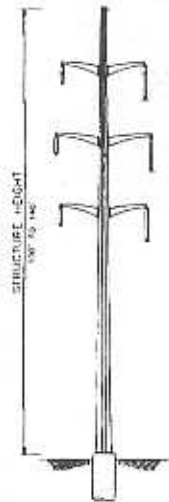
TASK FORCE LETTER TO LANDOWNERS

April 3, 1997

Dear Landowner:

If you have received this letter, your house or property may be in the path of a proposed high voltage powerline.

Northern States Power and Dairyland Power Cooperative have filed an application with the Environmental Quality Board to construct a 230 kilovolt powerline through Chisago County. This proposed project would involve purchase or condemnation of an easement for a 100 foot wide or greater right of way and the construction of steel poles greater than 100 feet high. All the proposed route alternatives start at the Chisago County Substation on County Road 14 and go eastward to one of three proposed crossings of the St. Croix River and then continue to the Apple River Substation near Amery, Wisconsin. Trees within the right of way would be clear-cut.



115/230 kV

WHAT CAN YOU DO TO GET MORE INFORMATION?

1. A citizen's Route Advisory Task Force is meeting weekly through April to recommend alternative routes for the EQB's consideration and to recommend issues to be included in the environmental impact assessment of the project. **These meetings are open to the public and public comment is scheduled at every meeting.**

*The Task Force will meet in full session every Monday evening through April at 7:00 p.m. at the Chisago County Government Center, Room 330. Additional meetings will be scheduled through the summer and fall.

2. Contact the EQB staff:

John P. Hynes, Project Leader, (612) 296-2871, e-mail: John.Hynes@mnplan.state.mn.us
Larry Hartman, Public Advisor, (612) 296-5089, e-mail: Larry.Hartman@mnplan.state.mn.us.
Either can also be reached at (800) 657-3794 or by fax at (612) 296-3698.

Environmental Quality Board
300 Centennial Office Building
658 Cedar St.
St. Paul, MN, 55155

3. Call the **Cable Access Video Project** number listed below for information on how you can record your comments about the proposed powerline. These videotaped comments will be entered into the official record.

*Call Linda at 612-257-2374 between 8:30 a.m. and 7:00 p.m. If you reach the answering machine, leave your name, phone number and address.

Sincerely,

Richard Herold
(JPH)

Richard Herold
MEQB Route Advisory Task Force



Route Advisory Task Force

- | | |
|--|---|
| 1. Dann Adair, Chisago Lake Township N
257-5627 | 2. Ralph Blood, Shafer Township
465-4205 |
| 3. John Cowles, Jr., Franconia Township
465-4401 | 4. Tom Delaney, Franconia Township
257-2599 |
| 5. Dale Fredrickson, Chisago Lake Township N
257-1279 | 6. Richard Herold, Taylors Falls
465-3562 |
| 7. George Honadle, Sunrise Township
481-1632 | 8. John Jackson, Franconia Township
257-5826 |
| 9. James Klinke, Shafer Township
583-2068 | 10. Cathy Martin, Chisago Lake Township N
257-8040 |
| 11. Cindy McLane, Taylors Falls
465-4832 | 12. Robert Miklya, Lent Township
257-6866 |
| 13. Bill Neuman, Franconia Township
257-6654 | 14. Bonnie Patrick, Chisago Lake Township N
257-1221 |
| 15. Debbie Reed, Chisago Lake Township N
257-6399 | 16. Dianna Rott, Amador Township
583-2151 |
| 17. Jerry Spicer, Taylors Falls
465-4345 | 18. Dennis Taylor, Shafer Township
583-2358 |
| 19. Amy Ward, St. Croix Falls
(715)483-1889 | |

APPENDIX K

MINUTES OF MEETINGS

Fourteen meetings were held between February 11, 1997 through May 19, 1997. Minutes for the first two meetings were prepared by task force member Cindy McLane and for the rest of the meetings by EQB staff.

This appendix is not attached to the report. It is available upon request from:

Environmental Quality Board
Att. John P. Hynes
300 Centennial Office Building
St. Paul, MN 55155

APPENDIX L

VOTES OF THE TASK FORCE ON RECOMMENDATIONS TO THE ENVIRONMENTAL QUALITY BOARD

The Route Advisory Task Force adopted the following rules to govern their voting on recommendations to the Environmental Quality Board.

Voting.

- i. **Task Force Business.** Roberts Rules of Order apply except for recommendations to the Environmental Quality Board.
- ii. **Recommendations to EQB.**
 - (1) A quorum of 14 qualified members is required to make recommendations to the Environmental Quality Board.
 - (2) An affirmative vote of a majority of all qualified members is necessary to make recommendations to the Environmental Quality Board.
 - (3) Qualified members are those who have attended 60% or more of all regular and special meetings.
 - * (4) The record of attendance for each member begins with the first regular or special meeting following appointment to the Task Force.

On May 19, 1997, 13 votes were taken on the report and the recommendations to the EQB. Seventeen members were present and all were eligible to vote. The vote for each motion was recorded as yes-no-abstain.

Alternate Route Recommendations

1. **Alma Crossing.** A new 161 kV transmission line from the Spring Creed Substation near Red Wing, MN, crossing the Mississippi River to the Alma Substation near Alma, WI, and a new 161 kV line from the Pine Lake Substation near Baldwin, WI, to the Apple River Substation, north of Amery, WI.

0-17-0 Rejected

2. King Plant Substation at Bayport, MN, to the Pine Lake Substation near Baldwin, WI, and the Red Rock Substation in Newport, MN, to the Crystal Cave Substation near Martel, WI, and from Pine Lake Substation to the Apple River Substation near Amery, WI (any proposed Stillwater bridge would be an alternative route segment for the King crossing);

17-0-0 Accepted

3. Rock Creek Substation in MN to Grantsburg, WI, then either to the Apple River Substation near Amery, WI, or to the Washco Substation near Shell Lake, WI;

17-0-0 Accepted

4. Arrowhead Substation, near Duluth, MN, to the Stone Lake Substation near Hayward, WI, to the Arpin Substation near Arpin, WI; 14-3-0 Accepted

5. Arrowhead Substation, near Duluth, MN, to the Stone Lake Substation near Hayward, WI, to the Washco Substation, near Shell Lake, WI, to the Barron Substation near Barron, WI, then to Eau Claire Substation near Eau Claire, WI. 15-2-0 Accepted

B: CONSIDERATIONS FOR THE EIS/EIA 17-0-0 Accepted

C: NO NEW CROSSINGS 16-1-0 Accepted

D: FULL-COST ACCOUNTING FOR ASSESSING ALL ALTERNATIVES 17-0-0 Accepted

E: TARGET AREA PLANNING 17-0-0 Accepted

F: ADVISORY PROCESS REQUIREMENTS 17-0-0 Accepted

APPENDICES 17-0-0 Accepted

EXECUTIVE SUMMARY 17-0-0 Accepted

COMPLETE REPORT 16-0-0 Accepted

APPENDIX M
CHISAGO COUNTY BOARD OF COMMISSIONERS
RESOLUTION

Citizens Advisory Task Force Report

Regarding the Proposed Chisago Transmission Lines

WHEREAS, the Chisago County Commissioners represent the citizens of Chisago County and have an interest in protecting natural, agricultural and built environments from unnecessary environmental degradation,

WHEREAS, the citizens of Chisago County deserve the protection of its elected officials,

WHEREAS, Northern States Power and Dairyland Power Corporation have applied to the Minnesota Environmental Quality Board (MEQB) for permission to construct high voltage transmission lines through Chisago County and then crossing the St. Croix River,

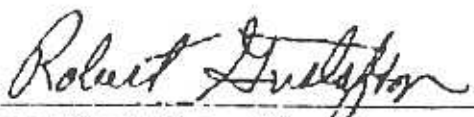
WHEREAS, the MEQB has duly appointed a Citizens Advisory Task Force comprised almost entirely of Chisago County residents,

WHEREAS, it is the charge of the Citizens Advisory Task Force to represent the public interest in this proceeding and to review and recommend route alternatives and environmental issues to the MEQB in a formal report,

WHEREAS, the Citizens Task force has met its preliminary charge and has earned the full confidence of the Chisago County Commissioners,

BE IT THEREFORE RESOLVED, that the Board of Commissioners of Chisago County unanimously supports the recommendations of the Citizens Advisory Task Force contained in its report to the Minnesota Environmental Quality Board.

5-7-97
Date


Robert Gustafson, Chair
Chisago County Board of
Commissioners