

# INDIGENOUS WOMEN'S MERCURY INVESTIGATION

In early 2006, we called the Minnesota Department of Health to ask for help in testing children who eat fish from Minnesota waters on a near daily basis for methyl-mercury, a deadly neurotoxin. Imagine our surprise when we got the response, “We don’t have any testing capability.” Never mind that Minnesota has had fish consumption advisories for more than two decades and it has been recognized that we have a methyl-mercury problem in fish for thirty years.

Finding no help in the most logical place you’d think could help, we then went to the University of Minnesota to at least find out what the proper testing protocol is for long-term low-level (chronic) methyl mercury exposure, so we could at least gather samples correctly and find a laboratory to process them.

But, we were again surprised to find that reliable tests for chronic mercury poisoning were not available. The existing tests, which are for acute exposure, tend to give false negative results.

Consequently, IWMI has spent the intervening time working to research and develop such a testing protocol with the University of Minnesota School of Public Health Division of Environmental Health faculty members Dr. William Toscano, Dr. Bruce Alexander, and Katherine Raleigh, and the Special Kids Program in Pediatrics for chronically ill children with Dr. Anne Kelly and April Schnell. A nutrition survey has also been developed to screen for potential exposure to methyl mercury in fish, as well as nutrition improvement recommendations.

Much of this effort was made possible by a tireless commitment from the University of Minnesota Faculty and a small planning grant from the Blue Cross and Blue Shield Foundation of Minnesota and their new Growing Up Healthy: Kids and Communities Initiative.

Besides all this, the University of Minnesota School of Public Health gave us their 2007 Community Partner Star Award for this collaborative work. The award included a plaque, a yummy dinner, a huge bouquet of orchids, and an article in their *Advances* departmental newsletter.

We are happy to say, though, that the Minnesota Department of Health Laboratory now has the ability to test for chronic mercury in blood, urine and blood spots (finger pricks) and has a mercury testing in newborns program. Turns out that Homeland Security is good for some things...we caused MDH to need money quickly, Homeland Security had some, and therefore MDH quickly incorporated this capability into their laboratory.

The Blue Cross Initiative requires a cross disciplinary approach to its program, and NAWO/IWMI has long organized in this way. Our Tribal Partners for the implementation phase of our work are the White Earth Band of Ojibwe Health Division under Director Jo Ellen Anywaush, and the White Earth Tribal Community College (WETCC) Science and Extension Departments under the direction of Dr. Steve Dahlberg.

The second phase of this work includes the creation of a children’s curriculum publication that teaches the role of water and the value of fish to Ojibwe cultural preservation. The work will be translated into the Ojibwe language as well as English, and illustrated with art and photos. We have contracted with Ms Renee Gurneau to assist us in this education piece and will be advised by a group of White Earth elders already in partnership with the WETCC.



Indigenous women have known for thousands of years the critical role fish play in having a healthy pregnancy and baby. The devastating

nature of this problem is starkly illustrated for us in the testimony presented by Leech Lake Tribal Chairman, George Goggeye Jr. before the US House Subcommittee on Water Resources and Environment, regarding non-point source pollution (atmospheric deposition and water quality). This testimony was presented in April 2007, and we quote it extensively below.

***“Tribes using their fishery resources are disproportionately impacted by mercury contamination because of their generally higher fish consumption as compared to the overall U.S. population. Based on human blood mercury research by Schober<sup>1</sup>, the U.S. Centers for Disease Control and Prevention estimates that 8% of American women of childbearing age have blood mercury levels above EPA safe levels. This percentage increases by four times to 31.5% for Native American women with blood mercury levels above the safe limit established by EPA.<sup>2</sup>***

***“The primary reason that Indian women may have elevated blood mercury levels is because Tribal members, particularly members of Tribes in and around the Mississippi and Great Lakes watersheds, harvest fishery resources for our nutritional needs in accordance with our Federally protected Treaty Rights. Good, clean fish are widely recognized as an excellent source of protein and healthful omega oils. The United States Environmental Protection Agency (EPA) reports that the average American consumes approximately 17.5 grams of fish per day. This translates to about 14 pounds of fish per person per year. Our Tribal sustenance fish consumption rate is over 200 grams per day or about 180 pounds of fish per year. Some Tribes report per person fish consumption rates of more than 365 pound per year. Consequently, Tribal exposure to mercury via fish ingestion may be 10 times greater, or more, than the average American.***

1 Schober, S.E., T.H. Sinks, R.L. Jones, P. Michael Bolger, M. McDowell, J. Osterloh, E. Spencer Garrett, R.A. Canady, C.F. Dillon, Y. Sun, C.B. Joseph and K.R. Mahaffey. 2003. Blood Mercury Levels in U.S. Children and Women of Childbearing Age, 1999-2000. J. Amer. Medic. Assoc. 289:1667-1674.

2 O'Neill, Catherine. 2004. Testimony to the U.S. House of Representatives, Subcommittee on Energy Policy, Natural Resources, and Regulatory Affairs of the House Committee on Government Reform. November 17, 2004.

***“The ability of mercury to cause IQ deficits in children is perhaps the most widely recognized quantifiable mercury impact. The following calculations are derived from the findings of the three major studies that have been done regarding mercury impacts to children, the EPA, and our ongoing Tribal research of mercury in fish. The three major studies are named for their geographic locations: Faroe Islands, New Zealand and Seychelles. The range of potential IQ deficit for children in the above studies is quite large, spanning from -0.53 to -0.024 IQ point for each part per million of maternal hair mercury.***

***“Our assessment of potential IQ impacts to Leech Lake children incorporates the above referenced study data, Tribal specific fish mercury data and Tribal seasonal fish consumption data (bolus dosing). All of this data translates to potential IQ losses of up to 14 IQ points per Leech Lake child. Then, as distasteful as this may be, using EPA’s economic valuation per IQ point of \$11,871, a child losing 14 IQ points to mercury would also be at an economic disadvantage of \$166,194.” (Leech Lake Technical Staff prepared this data. Reprinted with permission).***

## **Total Maximum Daily Load (TMDL) Mercury Rule**

The current ongoing US Environmental Protection Agency process to reduce the mercury emissions in Minnesota impaired waters is being done under the TMDL Mercury Rule. This Rule is designed to allow one fish meal a week at the end of a very long stakeholder process and emissions reduction effort. The reality is, that even if the mercury emissions were to stop completely today, it will be twenty years before there is a noticeable reduction of methyl-mercury in fish tissue. IWMI is participating in this stakeholder process. This proceeding is being facilitated for the Minnesota Pollution Control Agency by the Minnesota Environmental Initiative. More information can be found at:

<http://www.mn-ei.org/policy/hgtmdlindex.html>



# C-BED Community-Based Energy Development



After all these years, we finally have a growing understanding throughout society that we really do need the environmental benefits that renewable energy can provide. Global climate change is getting traction, but we are mindful that bad and thoughtless electrical energy habits are also primary contributors to many other environmental insults and public health degradations. The list includes mercury contamination, sub-micron particulate poisoning, acidification, chronic and potentially catastrophic nuclear irradiation, and the massive, wholesale transformation of pristine habitats into ecological slums due to high-head hydro development, as exemplified, with our participation, by Churchill-Nelson River projects in Manitoba. In short, while renewable energy offers solutions, if we are to get enough of it in time to make much difference environmentally, we will need a lot, and need it quickly.

To get enough in time means major industrial development in many rural communities. The impacts of major industrial development, however, often cause people from rural communities to resist that development. More often than not, their resistance is legitimate because the industrial developers are primarily intent on extracting resources and wealth, much as the Empire extracts resources and wealth from its colonies. And local interests, be they economic, environmental, public health or whatever, are usually not high on the Empire's list of priorities.

Community-Based Energy Development (C-BED) offers a way through this set of problems based on three facts:

- Minnesota has an abundance of renewable energy resources;
- the people of Minnesota are making the commitment to harvest those resources; and,
- Minnesota electric rate-payers are paying for the infrastructure and other costs associated with that harvest.

This being the case, who can seriously think that we should let large outside corporate interests take our

political commitment and our capital infrastructure investments, and make off with the wealth from the harvest of our renewable energy resources? Yet, this is exactly what is happening with, unfortunately, significant support from some of our long-time allies within the environmental community. And making off with that wealth is exactly what the corporations that now dominate wind development in Southwestern Minnesota (like PPM, enXco, Florida Power & Light, and GE Wind) intend to continue doing, while we pay even more for the infrastructure they need to do it. Without C-BED, and unless C-BED is extremely successful, the rip-off will get worse and worse until people in the impacted communities, which is just about all of us, finally decide enough is enough, and organize to protect our interests.

The amount of money at stake is staggering. Every year, Minnesota energy consumers spend over \$6 billion to pay for electricity. Virtually all of that money leaves our state economy, as Minnesota has no conventional energy resources. If we develop our renewable energy resources wisely however, over time, an increasing portion of this \$6 billion market will instead circulate repeatedly through the Minnesota economy, rather than being exported to serve some distant corporate agenda.

It turns out, of course, that C-BED *is* the organization that can protect the interests of ordinary people rooted in the Minnesota community as we develop our renewable energy resources. C-BED creates opportunity for the wealth from the renewable energy harvest to stay in Minnesota, creating good jobs, the tax revenues we need to educate the children, care for our elders, and keep the bridges from collapsing, and provide for the economic well-being of our citizens. The environmental benefits are an added bonus.

While C-BED legislation was first passed (with NAWO leadership) by the Minnesota Legislature in 2005, it has its roots deep in the Prairie Island

“ ...the best thing since the tractor,  
we’ve put the combine in the sky.” Dan Juhl

nuclear waste struggle. Not counting efforts of the Prairie Island Project way back in 1981 regarding the second re-racking of the Prairie Island nuclear waste storage pool, NAWO confronted NSP (now Xcel Energy) in 1987-88 when it decided to put high-level nuclear waste in storage casks, outside, in the Mississippi River floodplain, immediately adjacent to the Prairie Island Mdewakanton Dakota Community. That fight climaxed with 1994 legislative authorization for a limited number of casks in exchange for the first major utility-scale renewable energy development in North America.

Most of that renewable energy development was wind, and all of that mandated wind power was developed along Buffalo Ridge in Southwest Minnesota, one of the world’s best wind resource areas. But not so much electricity is needed in Southwest Minnesota, so in order for all that wind generation to be useful, new powerlines were needed to transmit the electricity to cities further east.

But the needed new powerlines weren’t proposed until the end of 2001. At the time, NSP wanted to merge with some other electric utility, and finally settled on New Century Energy in Colorado to form Xcel Energy. NAWO personnel served on the Board of Minnesotans for an Energy Efficient Economy (ME3, now Fresh Energy) back then, and ME3 was instrumental in the negotiations that resulted in the formation of Xcel Energy. A condition for the merger was that Xcel would come forward with proposals for the new transmission required to make good on the wind mandate from the Prairie Island nuclear waste fight.

Throughout 2002 and into 2003 NAWO participated in the Certificates of Need proceeding before the Minnesota Public Utilities Commission (MPUC) for four new powerlines in Southwest Minnesota. We teamed up with County Commissioners from Southwest Minnesota counties who had banded together to form the Rural Minnesota Energy Task Force to address the many issues facing their rural communities as a result of the wind energy mandate.

The four new powerlines would increase the Southwest Minnesota transmission outlet capacity by about 600 megawatts (MW), and between NAWO and the Task Force, we convinced the MPUC that to be fair, Xcel should be required to purchase the energy from 60 MW of locally owned wind generation capacity, as local ownership was defined by the Task Force, if we could make such energy available.

We then went to work for the remainder of 2003 and 2004 to create two 30 MW projects: Community Wind North (CWN), east of Lake Benton in Lincoln County; and Community Wind South (CWS), northwest of Worthington in Nobles County. The idea was to create a situation in which people in the communities impacted by major utility-scale energy development would not just get adversely impacted by big new powerlines, but would also have an opportunity to participate directly in the economic development made possible by the new powerlines.

Those four new powerlines are now almost complete. While certain important issues remain to be dealt with in terms of how landowners along the line routes get treated, by and large the affected communities are supportive of the new infrastructure *because they can also participate in the economic development by joining CWN and/or CWS.*

This experience forms the foundation for C-BED. The C-BED legislation that passed in 2005 establishes a framework for qualifying C-BED owners to negotiate Power Purchase Agreements (PPAs) with all electric utility companies that serve Minnesota customers. A PPA is a contract that specifies the terms whereby the purchasing utility buys electricity produced by the C-BED project. Qualifying C-BED owners can negotiate a PPA for any project that generates power that qualifies as “renewable energy” under Minnesota law.

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Qualifying C-BED owners, as specified by the statute, include:

- Limited Liability Corporations of Minnesota residents;
- Minnesota nonprofit organizations;
- Tribal Authorities;
- Minnesota cooperative associations;
- Minnesota electric coops and municipal power associations, provided that the local REA or Municipal is the equity partner;
- local units of government, government boards and commissions; and,
- school districts and public and private higher educational institutions.

While C-BED legislation establishes a framework for PPA negotiations, power companies have no *obligation* to purchase power from C-BED projects. C-BED projects must be competitive to get PPAs. But there is an expectation that competitive C-BED projects will get priority status as power companies secure power to meet their renewable energy obligations. In addition, the C-BED tariff (the price per kilowatt hour that the power company pays for C-BED energy) has the advantage of being “front-loaded” if the Qualifying Owners so desire. Front-loading provides the project with a higher cash-flow during the early years of the PPA (typically a 20 year contract) when the project needs more money to service its debt (typically a 10 year period). Then, after the debt is retired, less money is needed to keep the project economically viable. The purchase price of power is therefore reduced, giving society the advantage of *declining cost power* into the future.

The value of these two attributes of the C-BED tariff (the priority status and the front-load) is high enough so that everybody, especially corporate colonizers, wants to be C-BED. They want to give a few local landowners a little more money than the usual payment for wind rights on the land, and call themselves “C-BED.” So a major problem that remains unresolved has to do with defining “C-BED” in a way that truly does optimize local economic benefits from the development.

C-BED Qualifying Owners must overcome a large number of very difficult barriers in order to bring

their projects on-line. One of these barriers reflects the ability of corporate capital to protect itself against the economic democracy represented by C-BED. In the United States, fully 1/3 of the revenue required to make wind projects financially viable must come from federal tax credits. These tax credits are only available when Congress makes them available for specific periods of time, and when they are not available, as was the case throughout most of 2004, virtually no wind projects get developed. But the federal tax credits are only available for *passive* income. Taxes paid by ordinary people who work for a living do not qualify for *passive* income tax credits, which are only available for income from, say, rental properties, depreciation allowances, investment interest, or earnings on stocks or bonds. To have a large enough *passive* income tax credit appetite to invest in wind projects requires a very deep pocket.

C-BED projects overcome this barrier by finding equity partners with that deep pocket and passive income tax appetite, but bringing in such a partner significantly reduces the value of the project to local owners and the local community.

Another major barrier pertains to the incredible obstacles that C-BED projects must overcome in order to get connected to the powerline grid. C-BED projects tend to be in the 5—40 MW range and distributed and dispersed throughout the region. But the interconnection process was set up to connect a relatively few very large generators. Everyone now recognizes that the interconnection process is broken, and projects can languish for years, at a cost of hundreds of thousands of dollars, while their grid interconnection gets studied. How to fix this broken system equitably is still a very open question.

These and other major barriers mean that C-BED is not for the weak of heart, or people who lack persistence. But the rewards of success are very great. Every megawatt of wind generation capacity produces about \$150,000 per year worth of electricity. Without C-BED, over 80% of this wealth simply leaves Minnesota. With C-BED, most of that wealth can stay here and provide the economic foundation we need for healthy, vibrant communities. Presently, there are about 800 MW of C-BED projects being negotiated with Minnesota-based power companies. But we use energy from about 15,000 MW. What an opportunity!

**FROM**



**TO  
POWERLINES FOR  
POWER FROM  
THE PEOPLE!**



**SMART TRANSMISSION**

**vs.**

**DUMB POWERLINES**

**or**

**The Difference Between  
Economic Democracy &  
Corporate Oligarchy**

Plans for new powerlines are underway in Minnesota and in many regions of the country. As more people use more electrical devices in more neighborhoods, as more renewable energy is desired, and as society still makes energy consumption economically better for power companies than energy conservation, there is no doubt that additional transmission infrastructure is required. So the question is not whether more new powerlines are needed. Rather, the smart question is: How do we strategically enhance the existing transmission infrastructure, both powerlines and substation transformers, in proper sequence and time-frames, to optimize the electrical efficiency of the system, the cost-effectiveness of new infrastructure investments, and the local economic development benefits to consumers who must pay for it all?

Unfortunately, we're having a hard time getting to the smart question. Instead, the power companies are stuck in the old paradigm, in which a relatively few remote, central-station generators (including large corporate wind farms) send power to distant loads (cities) over extra-high voltage powerlines. If you want to learn more of what they're up to, check out their website at [www.capx2020.com](http://www.capx2020.com). If you want to see how electric utility regulators are warping and twisting if not breaking rules and statutes in order to accommodate old paradigm thinking, check out the Minnesota Public Utilities Commission (MPUC) Certificate of Need Docket Number E002/CN-06-1115, and view the Comments and Petitions of NAWO and the Institute for Local Self Reliance.

The new paradigm requires *smart* transmission that *strategically* enhances existing infrastructure, with the location and timing of new extra-high voltage powerlines being determined by where and when, and the extent to which the lower voltage system gets upgraded in any given region. The power companies and their regulators got it just backwards. They want to build the extra-high voltage powerlines first, before even beginning to analyze how the higher voltage system should complement and reinforce lower voltage enhancements.

If they get their way, they will *waste billions* of dollars on the wrong projects. They will cause many years worth of unnecessary delay in the paradigm shift to modern, cleaner, safer, cost-effective and more equitable generation technologies. They will abuse thousands of landowners who will get stuck with new powerlines that provide no local value, that stunt community-based energy development, and that invite major new power plant construction in the western coal fields.

So we will continue doing our best to help them get it right. Strategic enhancement of the system starts with a first step of finding those “sweet spots” in the existing system where transmission and substation capacity intersect with wind or other renewable energy resources. A “sweet spot” is sweet because the existing infrastructure is able to accept energy from new generation at that location and deliver it to market.

The next step in developing smart transmission is to enhance that sweet spot by, for example, increasing transformer capacity at that substation and/or by upgrading the lower voltage powerline connecting that substation to the grid. After the enhancements, for example, that sweet spot may be able to accommodate energy from perhaps 40 or 60 MW of new generation capacity within connecting distance of the substation, rather than the 5 or 10 MW that the sweet spot could accommodate before the enhancements.

These enhancements can be accomplished quickly, often in a matter of months, compared to the 7 years or more that it takes to design,

authorize, site, and construct a new extra-high voltage powerline. These enhancements are extremely cost-effective, with each individual, modular enhancement often costing in the range of a few hundred thousand dollars or less, compared to more than a million dollars per mile for many hundreds of miles of extra-high voltage transmission. While each set of transformer and lower voltage transmission enhancements may increase the ability of the overall transmission system to accommodate perhaps 10 to 40 MW, there are literally hundreds of opportunities for such enhancements just in Minnesota. Taken together, these enhancements can deliver energy to market from many thousands of megawatts of new, strategically located electrical generation capacity!

NAWO knows quite a bit about the difference between smart transmission and dumb powerlines because we made a deal a couple years ago. A consortium of power companies wanted to build a big new coal-fired power plant called Big Stone II, in South Dakota just across the border from Ortonville. While Minnesota had little to say about building the plant, most of the power would be consumed in Minnesota, so our MPUC needed to authorize the new Big Stone II powerlines. The Big Stone II Consortium was quite intent on keeping NAWO from intervening against those new powerlines. So much so that we were invited up to the 42<sup>nd</sup> floor of the IDS Tower four times during the summer of 2005 to see what it would take to keep us out.

During those meetings we took every opportunity to tell the assembled utility managers and lawyers what a bad idea Big Stone II was. But to their great credit (and recognizing what we could cost them if we intervened), they were persistent and patient and we finally came to an understanding. In exchange for NAWO not intervening against the powerlines, the utilities would begin learning how to do *smart* transmission. They agreed to assign their engineers, using their transmission power-flow computer models, the task of analyzing how the transmission system can be developed so that it can efficiently and effectively collect energy from multiple distributed and dispersed generation sources, and deliver that energy to the same markets that the old paradigm tries to serve with a relatively few remote central-station power plants hooked up to a relatively few extra-high voltage powerlines. That was the deal.



We focused the study on the West Central Minnesota Transmission Planning Zone, a region roughly 50 miles north and south of St. Cloud, and west to the Dakota border. Just in that region, we found that energy from 1,400 MW of new generation could be injected into the system for less than \$100 million worth of transmission fixes without overloading existing powerlines, and no new extra-high voltage transmission was needed.

For comparison, CAPX 2020 wants to spend \$3 to \$6 Billion in Minnesota, Western Wisconsin, Northern Iowa and Eastern Dakotas, to accommodate about 6,000 MW of new generation. The report of this study, along with maps of all the Minnesota transmission planning zones in which the transmission infrastructure is overlaid on the Minnesota wind resource, is available at [www.capx2020.com](http://www.capx2020.com) (go to “documents” and find C-BED Transmission Study Report). You can also find the report and maps at [www.c-bed.org](http://www.c-bed.org).

The value we began uncovering with this C-BED Transmission Study is so great that the 2007 Minnesota Legislature passed a law requiring a similar state-wide study. The law divides the study into two phases, with each phase analyzing the injection of energy from about 120 MW in each of five Greater Minnesota Transmission Planning Zones, for a total of at least 1,200 MW.

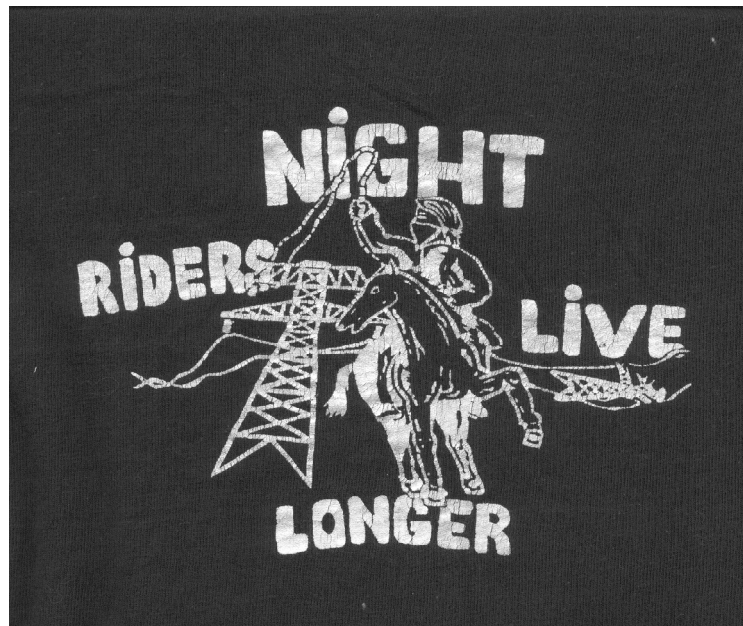
The work is guided by a Technical Review Committee of engineers, with C-BED interests being well represented, and by public participation at a

series of meetings. The legislation requires these public meetings to be held in each of the transmission planning zones for each phase of the study, and the first round of meetings was very successfully completed in September. Phase 1 will be done in June of 2008. Phase 2 will be complete in September, 2009, and we expect this work to confirm and reinforce the value we began to recognize with the West Central Study.

On a basis of infrastructure dollars spent per MW of transmission outlet capacity, we can say with great confidence that smart transmission beats dumb powerlines by a factor of at least 10 to 1. Smart transmission is more reliable than dumb powerlines for the same reason that trees don’t have just three big leaves. Smart transmission can come on-line immediately, incrementally as needed, to accommodate community-based energy development throughout our state, which would create thousands of good jobs, enough wealth for healthy communities, and enough tax revenue to educate the children and care for our elders without the bridges collapsing. And oh yeah: it’s also an extremely effective climate change/environmental protection strategy.

But instead, here we are, facing a utility proposal for billions of dollars for more big dumb extra-high voltage powerlines. The regulators are schnookered, at best. So are most of the enviros and most of the politicians. Who do you like – the oligarchs or economic democracy?

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# MONTICELLO... PRAIRIE ISLAND &... MORE NUKES in Minnesota?

What the heck are they thinking? Don't they know enough about the dubious nature of nuclear power to realize that any request for further dry cask storage of nuclear waste to accommodate more energy production **OR THE BUILDING OF A NEW NUCLEAR POWER PLANT** serves no public interest in any way, shape or form? **ARE THEY NUTS?**

Definition of "they": Any utility, governmental body, or individual who deems nuclear power the solution for green house warming, with the hope that 'they' will profit hugely while saddling a presently passive public and environment (via the Federal Government Welfare System for Utilities) with the risks, plus massive external and hidden costs.

Definition of "nuts": Anyone who thinks 'they' can get away with it.

**We need to say "Enough!"** Why? Here's a little refresher course for those who have forgotten some of the facts that ought to make your blood boil:

"There is no safe dose of radiation." **(Beir VII Report, June 30, 2005.)**

Every nuclear power plant routinely released significant amounts of radiation, and as plants age beyond about 30 years of operation, radioactive releases tend to increase even more. The Monticello Nuclear Power Plant will be 40 years old in the year 2010. **Yet Xcel is proposing an additional 20 years of operation (for both their Monticello and Prairie Island Nuclear Power Plants).**

If we discontinue the use of nuclear power nationwide, there would be approximately 40,000 fewer cases of breast cancer each year.....and 4000 fewer deaths from breast cancer. **(p. 183, THE ENEMY WITHIN, by: Jay Gould)** Similar statistics could also be expected in connection to other health issues such as: thyroid dysfunction, thyroid cancer, low birth weights, prostate cancer, etc.....

Short term nuclear waste storage needs to be re-defined as permanent nuclear waste storage. The Federal Government has not met it's responsibility for the establishment of a national permanent nuclear waste storage facility. The fallback plan is to leave it where it is.

We as individual citizens are being saddled with the liability and cost of recovery for any catastrophic nuclear event. How? It's called "The Price/Anderson Act." It shields nuclear plant owners from liability costs. Without Price/Anderson protection, there would be no commercial nuclear industry, as a single event could wipe out even more than an entire service territory. Perversely, as the industry matures, this federal subsidy increases, with an estimated increase of 30% since 9/11. **(Safe Energy Communication Council, Washington, DC)** As a state, if anything where to happen, we would be looking for up to \$550.7 billion dollars in federal aid and monies from our own coffers. Not a good risk when looking at how aid has been handled for New Orleans after Katrina.

The list of reasons to discontinue nuclear power as a means of meeting our energy needs is long.



High on the list is the fact that by phasing out nuclear operations at Monticello, for example, we would actually save about \$400 million in the next 20 years, while building renewable industries and jobs by choosing community-based energy development.

So what have we been doing? In February, 2005, NAWO became an intervener in Xcel's request for dry cask storage of nuclear waste at the Monticello Plant. The request included storage for the nuclear waste that presently exists in the pool as well as enough additional storage to allow for 20 years of continued operation beyond the original license period of 2010. Despite our best efforts, decision-makers decided in 2006 that it would be better to accept the costs and liabilities of continued nuclear operations at Monticello than to opt for the uncertainty associated with conservation and renewable energy. Go figure.

So off we went to the 2007 Legislative Session, attempting what we could, without much help from anywhere, to slow Xcel's bid for dry cask storage of nuclear waste at the Monticello. We were not successful, and legislation was even passed requiring the Legislative Electric Energy Task Force to issue a request for "Proposals to Conduct an Analysis of the Economic and Environmental Costs of Constructing a 600 Megawatt Nuclear Powered Electric Generation Plant in Minnesota." We are looking forward to that analysis, and have some reasonable expectation that actual costs, liabilities, and benefits of such an adventure will be reported.

We did have some legislative success in 2007, however, and if we can build on it, we will have a chance to phase out commercial nuclear operations rationally before we are driven by a catastrophic event. With great leadership from Representative Karen Clark, we were able to pass through the House a requirement that radiation monitoring at Monticello and at Prairie Island be upgraded enough to actually tell us where the radiation goes, after it is released by the plant.

As things stand, radiation monitoring is sufficient to tell us where it isn't. In fact, Xcel is proud of the fact that not a single radionuclide has ever been detected by its radiation monitoring programs, despite the fact that Prairie Island and Monticello have each released, and reported the release of, more than a million Curies of radiation since coming on-line.

But we don't really need to know where the radiation isn't. We need to know where it is, because there is no safe dose. If protecting public health is important, we need to know the dispersion pattern of released radiation. We need to know if radionuclide concentrations occur in hot spots, because each exposure to each radionuclide increases the risk of cancers, other diseases and mutations. Unless and until radiation monitoring surrounding nuclear power plants becomes sophisticated enough to tell us where released radiation goes, there is no scientific foundation for claiming that reactors do not adversely impact public health.

We were able to get the monitoring legislation passed in the House, and in the process we began to re-established a relationship with the Prairie Island Mdewakanton Community. But we lost the monitoring language when the larger bill went to Conference Committee to reconcile differences between the House and the Senate. Our challenge in the upcoming Session will be to build on this success, and help legislators understand that radiation monitoring should provide something more than a public relations function.

Finally, we expect Xcel to request re-licensing and more nuclear waste storage capacity for the Prairie Island reactors. So, if you're looking for a change of pace, enjoy frustration, fatigue with short adrenaline rushes, like thinking on your feet and in circles, bad coffee, have no spare time but want to get involved anyway.....give us a call. We'll find something exciting for you to do.

## **23 Nuclear Waste Casks at the Prairie Island Nuclear Reactor**



## NAWO IS 25

worst contamination, including environmental desecration caused by large-scale hydro-power, disproportionately impacts Indigenous Peoples, other People of Color, and people living at subsistence levels.

From the beginning, NAWO focused its agenda on the relationships that connect energy development to our environment, to economic development, to public health, and to social justice. We have maintained a “solution orientation” that promotes energy management based on the efficient use of locally available renewable energy resources. We confront energy management and decision-making that tolerates and often rewards pollution and waste, and we confront those greedy, self-serving and short-sighted practices as vigorously and as creatively as we can imagine.

NAWO’s first campaign was to help protect Minnesota from the ravages of acid rain and associated mercury contamination. We were instrumental in helping decision-makers understand that acidification actually is caused by pollution from power plants and industrial processes, not by volcanoes and oceanic algae, as the power companies attempted strenuously to insist. As a result, Minnesota successfully enacted a relatively protective acid deposition standard, and by taking action despite power company objections, Minnesota forced the nation to finally address the problem.

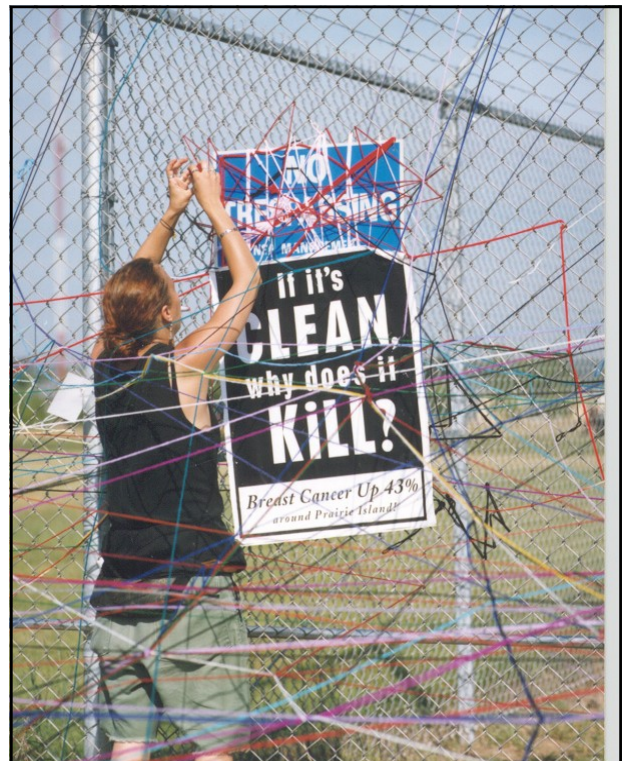
In the mid-1980’s, during a Northern States Power Co. (NSP) rate case for a big new coal plant, NAWO introduced a concept that would de-couple utility earnings from energy sales. Power companies would no longer be rewarded for producing more pollution, but would instead be healthier financially as they provided utility services to consumers more efficiently. We weren’t able to make it stick, but now, over 20 years later, Minnesota electric utilities are finally beginning to experiment with the de-coupling concept.

Several major developments resulted from NAWO’s intervention in decision-making about high-level nuclear waste storage at the Prairie Island Nuclear Power Plant. We began this effort in 1987, and to this day, we continue building on its legacy. The struggle went through highly contentious administrative and judicial

proceedings, which set the stage for a bitter and protracted battle that raged throughout the 1994 Minnesota Legislative Session. At the end of the session, NSP had a limited number of casks, but renewable energy finally got catapulted into utility-scale development in North America.

The limit on nuclear waste storage at Prairie Island caused NSP to pursue national strategies in Congress, to send the waste to a parking lot at Yucca Mountain on Western Shoshone land in Nevada, and privately, to send it to Mescalero Apache in New Mexico and then to Skull Valley Goshutes in Utah. NAWO followed NSP onto the national stage opposing these racist and irresponsible programs. Nuclear waste will not be sent to Indian land in New Mexico or in Utah, and so far, none has been sent to Yucca Mountain. Nuclear waste management issues remain unresolved, but we have done our part to prevent the nuclear industry from implementing the more abusive and destructive options that it continues working really hard to get.

Meanwhile, people are now starting to realize the opportunities created by renewable energy development. The challenge is to do it right, so that we get enough in time to provide meaningful environmental protection. That means C-BED: Community-Based Energy Development. The solution is in sight!



# North American Water Office

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Louis Alemayehu, Sara Axtell, Bruce Drew, Rosalie Wahl

**Louis** met NAWO through his work with the Youth Project and the Mississippi River Revival. He initially came to us in 1984 as a grant writer in the organization's early years, and has returned for the last six years to bring the New Village Alliance concept forward within the framework of NAWO's mission. He is currently on the Board for Environmental Justice Advocates of Minnesota (EJAM)

**Sara** became aware of NAWO during the 1994 Legislative fight around Prairie Island Nuclear Waste Storage. She contacted the Water Office for a speaker on the topic. We have had a continuing relationship with her class on community organizing at the U of MN School of Public Health since that time. She is now the Community Campus Health Liaison whose job is to bring U of MN faculty and community groups working on projects together. Sara has been instrumental in facilitating such a partnership with the Indigenous Women's Mercury Investigation project of NAWO. She is also affiliated with the Powderhorn Phillips Cultural Wellness Center.

**Bruce**, a retired statistician, became involved during NSP's 1986 Rate Case. The NAWO intervention focused on decoupling earnings from sales of electricity. Bruce co-authored, along with John Oughton, the Prairie Island Coalition Against Nuclear Storage publication, *Minnesota's Energy Future*. He coordinated the Prairie Island Coalition discovery process during the Northern States Power Company vs. Westinghouse nuclear steam generator failure lawsuit, directing over 40 volunteers to review over a million pages of internal nuclear utility documents and photocopy 60,000 of the more incriminating pages in triplicate. Bruce also reviewed and commented on the Environmental Impact Statement for NSP's Prairie Island's dry cask storage proposal. He is a major donor of the organization.

**Laurence** learned about NAWO through White Earth Land Recovery Project and the Rocky Mountain Institute. He got involved in the early days and helped do the research and computer work needed to publish the *SO<sub>2</sub> Point Source Directory* mapping project during the Acid Rain program focus. He is now doing C-BED work in Canada and is the web master for NAWO and C-BED.

**Diane** helped with community organizing on the Wisconsin side of the Mississippi River during the 1994 Prairie Island Nuclear Waste fight. Her family farm is directly across the River from the power plant. She is currently a Holistic health Practitioner. NAWO work this past year has included our new educational brochures on the Monticello Nuclear Plant high level nuclear waste on site dry cask storage, which Diane helped research and write.

**Rosalie** is Minnesota's first female Minnesota Supreme Court Justice. She is now retired.

**Ralph** is a major donor of the organization particularly in the early days when "Profitable Solutions to Pollution" was the focus of our work, and has advised on sustainable agriculture concepts through his work with the Institute for Sustainable Agriculture at the University of Minnesota.

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