

09hr_ASC-CEJ_ab0649_pt02



(FORM UPDATED: 08/11/2010)

**WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS**

2009-10

(session year)

Assembly

(Assembly, Senate or Joint)

Special Committee on Clean Energy Jobs...

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)
 - (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
 - (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Stefanie Rose (LRB) (December 2012)

Assembly

Record of Committee Proceedings

Committee on SpecialClean Energy Jobs

Assembly Bill 649

Relating to: goals for reductions in greenhouse gas emissions, for construction of zero net energy buildings and for energy conservation; information, analyses, reports, education, and training concerning greenhouse gas emissions and climate change; energy efficiency and renewable resource programs; renewable energy requirements of electric utilities and retail cooperatives; requiring electric utilities to purchase renewable energy from certain renewable facilities in their service territories; authority of the Public Service Commission over nuclear power plants; motor vehicle emission limitations; a low carbon standard for transportation fuels; the brownfield site assessment grant program, the main street program, the brownfields grant program, the forward innovation fund, grants to local governments for planning activities, the transportation facilities economic assistance and development program, a model parking ordinance; surface transportation planning by the Department of Transportation and metropolitan planning organizations to reduce greenhouse gas emissions; environmental evaluations for transportation projects; idling limits for certain vehicles; energy conservation codes for public buildings, places of employment, one- and two-family dwellings, and agricultural facilities; design standards for state buildings; energy efficiency standards for certain consumer audio and video devices, boiler inspection requirements; greenhouse gas emissions and energy use by certain state agencies and state assistance to school districts in achieving energy efficiencies; creating an exception to local levy limits for amounts spent on energy efficiency measures; creating an energy crop reserve program; identification of private forest land, promoting sequestration of carbon in forests, qualifying practices and cost-share requirements under the forest grant program established by the Department of Natural Resources; air pollution permits for certain stationary sources reducing greenhouse gas emissions; allocating a portion of existing tax-exempt industrial development revenue bonding to clean energy manufacturing facilities and renewable power generating facilities; requiring a report on certain programs to limit greenhouse gas emissions; granting rule-making authority; requiring the exercise of rule-making authority; and providing a penalty.

By Representatives Black and Soletski; cosponsored by Senators Miller and Plale, by request of Governor James E. Doyle.

January 06, 2010 Referred to Special Committee on Clean Energy Jobs.

January 20, 2010 **PUBLIC HEARING HELD**

Present: (10) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi, Hraychuck, Mason, Huebsch, Montgomery, Gunderson.

Absent: (0) None.

Appearances For

- None.

Appearances Against

- None.

Appearances for Information Only

- David Lovell — Legislative Council
- John Stolzenberg — Legislative Council
- Tia Nelson — Governor's Global Warming Task Force
- Roy Thilly — Governor's Global Warming Task Force

Registrations For

- None.

Registrations Against

- None.

Registrations for Information Only

- None.

February 2, 2010

PUBLIC HEARING HELD

Present: (10) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi, Hraychuck, Mason, Huebsch, Montgomery, Gunderson.

Absent: (0) None.

Appearances For

- Dick Leinenkugel, Madison — Department of Commerce
- Eric Callisto, Madison — Public Service Commission
- Matt Frank, Madison — Department of Natural Resources
- John Kutzbach, Madison
- Keith Reopelle, Madison — Clean Wisconsin
- Greg Nemet, Madison — UW School of Medicine & Public Health
- Joel Charles, Madison — UW School of Medicine & Public Health

- Jesse Charles, Madison — UW School of Medicine & Public Health
 - Michael Vickerman, Madison — RENEW Wisconsin
 - Dave Miller — Wave Wind
 - Josh Stolzenburg, Stevens Point — North Wind Renewable Energy
 - Martin David, Middleton
 - Rod Heller, McFarland — Energy Performance Specialists
 - Jim Yockey — Seventh Generation Energy
 - Chris Collins — H & H Solar
 - Lincoln Tice — Full Spectrum Solar
 - Dave Boetcher — IBEW Inside
 - Larry Krom, Spring Green — L & S Technical Associates
 - Bill McClenahan, Madison — Invenergy Wind
 - Jeff DeLaune, Neenah — Johnson Controls
 - Bridget Holcomb, Madison — Michael Fields Ag Institute, WI
- Homegrown Energy Campaign
- Bill Christofferson, Milwaukee — WI Network for Peace & Justice
 - Frank Jablonski, Madison — Nuclear Energy Institute
 - Shahla Werner, Madison — Sierra Club
 - Liz Klainot, Milwaukee — Peace Action Wisconsin
 - Steve Hiniker, Madison — 1000 Friends of Wisconsin
 - Dan Kohler, Madison — Wisconsin Environment
 - Steve Books, Mount Horeb
 - Edward Kuharski, Madison — Green Design Studio
 - Jennifer Nordstrom, Racine — Institute for Energy & Environmental Research
 - Susan Williams, Madison
 - Philip Leavenworth, Mount Horeb
 - Rep. Ted Zigmunt, Francis Creek — 2nd Assembly District
 - Leila Brown, Madison

Appearances Against

- Rep. Jim Ott, Mequon — 23rd Assembly District
- Erin Roth, Madison — WI Petroleum Council, American Petroleum Institute
- Ed Wilusz, Appleton — Wisconsin Paper Council
- Thomas Scharff, Wisconsin Rapids — NewPage Corp
- Todd Stuart, Madison — WIEG
- Jeff Schoepke, St. Paul — Flint Hills Resources
- Jay Reinhardt, St. Paul — Flint Hills Resources
- Bill Sepic, Madison — WI Auto & Truck Dealers Association
- Scott Manley, Madison — WI Manufacturers & Commerce

- Brian Mitchell, Oconomowoc — WI Cast Metals Association
- Thomas O'Grady, Sun Prairie
- Bob Seitz, Madison — Wisconsin Utility Investors

Appearances for Information Only

- Mike Stranz, Madison — Wisconsin Farmers Union
- Maggie Grabow, Madison — UW-Madison Nelson Institute and School of Medicine & Public Health
- Emily Hiatt, La Crosse — Dairyland Power
- David Donovan, Madison — Xcel Energy
- Dave Dahlberg, Grantsburg — North Central Power
- Gregory Nemet, Madison
- Charlie Higley, Madison — Citizens Utility Board
- Bill Skewes, Madison — WI Utilities Association
- Janet Parker, Madison

Registrations For

- Steve Drake, Madison
- Robert Redford, Verona
- Mitchell Brey, Madison
- Hugh Schmidt, Evansville
- Wesley Carter, Milwaukee — League of Young Voters
- Jayme Montgomery-Baker, Milwaukee — League of Young Voters
- John Gustafson, Madison
- Barbara Skiles, Oregon
- Shelly Laffin, Spring Green — L&S Technical Associates
- Cameron Connors, Madison
- Katy Walter, Madison
- Lance Green, Madison
- Eva Denny, Verona
- Seth Nowak, Madison — ACEEE
- Kevin Crawford, Manitowoc — Orion Energy Systems
- Elizabeth Wessel, Madison — Green Concierge Travel
- Gary Werner, Madison
- John Sumi, Madison — Madison Gas and Electric
- Jeff Crawford, Crandon — Forest County Potawatomi
- Wes Slaymaker, Madison — WES Engineering LLC
- Scott Meske, Sun Prairie — Municipal Electric Utilities of WI
- Leslie Hutchins, Self — Evansville
- Tom Becker, Evansville
- Shaina Kilcoyne, Madison
- Tina Prigge, Manitowoc — Orion Energy Systems

- Laura Goldberg, Madison
- Laura Selig, Madison
- Xiaolin Bi, Madison
- George Edgar, Madison — WI Energy Conservation Corp.
- Carol Gruba, Madison — Sierra Club

Registrations Against

- Pam Christenson, Madison — WI Petroleum Marketers & Convenience Store Association
- Marc Bentley, Madison — Marten Transport, WI Engine Manufacturers and Distributors Alliance, Schneider National
- Nick George, Madison — Midwest Food Processors Assn
- Bill Smith, Madison — National Federation of Independent Business
- Sondra Davis, Racine
- Roy Davis, Racine
- Bob Welch, Madison — WI Corn Growers Association
- Larry Gamble, Franklin
- Tim Dake, Franklin
- Michele Dake, Franklin
- Rep. Mark Honadel, South Milwaukee — 21st Assembly District
- Marc Bentley, Madison — WI Motor Carriers Association
- Andrew Cook, Madison — American Coalition for Clean Coal Electricity
- Andrew Cook, Madison — Alliance of Automobile Manufacturers
- Katie Walbe — General Motors
- Pat Osborne, Madison — Aggregate Producers of WI
- Pat Osborne, Madison — Marathon Oil
- Brandon Scholz, Madison — WI Grocers Association
- Brad Boycks, Madison — WI Builders Association
- Thomas Rawling, Waunakee
- Tom Howells, Madison — WI Motor Carriers Association
- Mary Beth Schlagheck, Windsor
- Randy Melchet, Menomonee Falls — Wisconsinites for Global Warming
- John Orton, Grafton

Registrations for Information Only

- Tim Carpenter, Milwaukee — 3rd Senate District

February 15, 2010

PUBLIC HEARING HELD

Present: (9) Representatives Black, Soletski, Steinbrink, Parisi, Hraychuck, Mason, Huebsch, Montgomery and Gunderson.

Absent: (1) Representative Zepnick (excused).

Appearances For

- Kevin Orth, Racine — Ruud Lighting
- Timothy McComish, Shullsburg — Seymour Township
- Jack Sauer, Darlington — LaFayette County
- Brian Antonich — Horizon Wind Energy
- Robin Eckstein, Appleton
- Kathy Lefebvre, Green Bay — League of Women Voters
- Dan Kohler, Madison — Wisconsin Environment
- Dave Terpstra, Spring Green — Terp LLC
- Peter Bakken, Sun Prairie — Wisconsin Council of Churches
- Tom Green, North Freedom — Wind Capital Group
- Wes Slaymaker, Madison
- Will Stahl, Neenah — Sierra Club
- Eric Welch, Hartford — Northern Power Systems
- Vicki Lipinski, Waukesha — ACRE Coalition
- Steve Ostrenga — ACRE
- Robert Burkart-Lemke, Milwaukee
- Ron Tank, Grand Chute
- Alex DePillis, Madison — Clean Energy Partners
- Betsey Day, Middleton — NRC
- Ray Davy, St. Paul — Agri-Waste Energy
- David Heidel, Random Lake — Heidel Dairy
- Ed Ritgers, Random Lake — Wind Landowners
- Mark Yaeger — Sun & Daughters Renewable Energy
- Michael Hastings, Milwaukee — Half Moon Power
- Bill French, Chicago — Midwest Wind Energy LLC
- Chris Cabello, Little Chute
- Eric Godin, Manitowoc
- Ruth Feldhaus, Green Bay
- Forrest Ceel, Menomonee Falls — International Brotherhood of Electrical Workers
- Samantha McKeough, Green Bay
- Joel Haubrich — We Energies
- T. Grayfow, Whitewater
- Jerry Kuehn, Green Bay

- Don Ferber, Madison
- Brett Hulsey, Madison — Dane County
- Clay Thomas, Madison
- Kevin Crawford, Manitowoc — Orion Energy Systems

Appearances Against

- Jim Kiser, Fond du Lac
- Richard Cherwenka, Brookfield
- Jon Koniecki, Milton
- Matt Gaboda, Evansville
- Kolby Hirth, Spring Green
- Steve McCrary, Kenosha
- Glen Schwalbach, De Pere
- Tom Hoversten, Lodi — Columbia County GOP
- Joe Ra, Janesville — K12 Public School
- Mary Glenn Fuchs, Mequon
- Curt Lillie, Brookfield
- David Podratz, Superior — Murphy Oil
- Patrick Stevens, Madison — Wisconsin Builders Association
- Jeff Lyon, Madison — Wisconsin Farm Bureau
- Bob Welch — Wisconsin Corn Growers Association

Appearances for Information Only

- Terry Mulville, Berlin — Sunny Solutions
- Elizabeth Rich, Plymouth — E4
- Allison Hannon, Chicago — The Climate Group
- Brain Ihlenfeldt, Kewaunee

Registrations For

- Judy Skog, Madison
- Margi Kindig, Madison — GWTF Member
- Heidi Speight, Madison
- Deb Karpfinger, Wauwatosa
- Chris Dasinger, Madison
- Bill Miller, Random Lake
- Seth Nowak, Madison — ACEEE
- Clay Thomas, Madison
- David Vitse, Madison
- Linda Turner, Nashotah
- Genevieve Rosay, Madison
- Cathy Riddle, Middleton
- Marnie Schulenburg, Madison

- Carolyn Carlson, Fitchburg — Orchard Ridge UCC Church
- Meg Stevens, Madison — Orchard Ridge UCC Church
- Teresa LeClercq, Green Bay
- Crystal Svoboda, McFarland
- Rebecca DeReane, Green Bay
- Nicole Richmond, Madison
- Renee Eckstein, Appleton
- Laura Goldberg, Madison — WisPIRG
- Scott Thompson, Greendale
- Barbara Wozniak, Green Bay
- Paul Wozniak, Green Bay
- Amber Quaintance, Clintonville
- Julie Jarvais, Bear Creek
- Jerry Kuehn, Green Bay
- Carol De Groot, Green Bay — League of Women Voters
- Mia Bowman, Appleton
- Samantha Rose Gibb, Madison
- Laura Selig, Madison — WisPIRG
- Riley Whitehead, Madison — WisPIRG
- Laurel Mills, Madison — WisPIRG
- Ryan Crawford, Madison — WisPIRG
- Andy Olsen, Madison

Registrations Against

- Richard Kadausky, St. Paul — Marathon Petroleum Corp.
- Michael Ulrich, Menomonee Falls
- J. David Fochs, Mequon
- Linda Turner, Nashotah
- Nick George, Madison — Midwest Food Processors Association
- Jordan Lamb, Madison — Wisconsin Potato & Vegetable Growers Association, Wisconsin Cattlemen's Association, Wisconsin Pork Association
- Bob Welch — CWEST
- Brandi Lefebber, Hilbert
- Scott Hamilton, Greenville

Registrations for Information Only

- None.

April 15, 2010

EXECUTIVE SESSION HELD

Present: (9) Representatives Black, Soletski, Steinbrink, Zepnick,
Parisi, Mason, Huebsch, Montgomery and Gunderson.
Absent: (0) None.

Moved by Representative Huebsch, seconded by Representative
Montgomery that **Assembly Amendment 1 to Assembly Substitute
Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and
Gunderson.
Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick,
Parisi and Mason.

ASSEMBLY AMENDMENT 1 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Montgomery, seconded by Representative
Huebsch that **Assembly Amendment 2 to Assembly Substitute
Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and
Gunderson.
Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick,
Parisi and Mason.

ASSEMBLY AMENDMENT 2 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Gunderson, seconded by Representative
Montgomery that **Assembly Amendment 3 to Assembly Substitute
Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and
Gunderson.
Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick,
Parisi and Mason.

ASSEMBLY AMENDMENT 3 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Gunderson, seconded by Representative
Montgomery that **Assembly Amendment 4 to Assembly Substitute
Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and Gunderson.

Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

ASSEMBLY AMENDMENT 4 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Montgomery, seconded by Representative Gunderson that **Assembly Amendment 5 to Assembly Substitute Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and Gunderson.

Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

ASSEMBLY AMENDMENT 5 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Gunderson, seconded by Representative Huebsch that **Assembly Amendment 6 to Assembly Substitute Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and Gunderson.

Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

ASSEMBLY AMENDMENT 6 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Huebsch, seconded by Representative Gunderson that **Assembly Amendment 7 to Assembly Substitute Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and Gunderson.

Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

ASSEMBLY AMENDMENT 7 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Montgomery, seconded by Representative Gunderson that **Assembly Amendment 8 to Assembly Substitute Amendment 1** be recommended for adoption.

Ayes: (3) Representatives Huebsch, Montgomery and Gunderson.

Noes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

ASSEMBLY AMENDMENT 8 TO ASSEMBLY SUBSTITUTE
AMENDMENT 1 ADOPTION NOT RECOMMENDED, Ayes 3, Noes 6

Moved by Representative Soletski, seconded by Representative Black that **Assembly Substitute Amendment 1** be recommended for adoption.

Ayes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

Noes: (3) Representatives Huebsch, Montgomery and Gunderson.

ASSEMBLY SUBSTITUTE AMENDMENT 1 ADOPTION
RECOMMENDED, Ayes 6, Noes 3

Moved by Representative Soletski, seconded by Representative Black that **Assembly Bill 649** be recommended for passage as amended.

Ayes: (6) Representatives Black, Soletski, Steinbrink, Zepnick, Parisi and Mason.

Noes: (3) Representatives Huebsch, Montgomery and Gunderson.

PASSAGE AS AMENDED RECOMMENDED, Ayes 6, Noes 3

John Maycroft
Committee Clerk



**Before the
Senate Committee on Energy, Utilities & Information Technology
and
Assembly Committee on Energy & Utilities**

**Regarding LRB - 3616/2
Draft Legislation Relating to
Energy Efficiency and Renewable Energy**

**November 22, 2005
Madison, Wisconsin**

Good morning Senator Cowles, Representative Montgomery, Senate and Assembly committee members and legislative personnel.

We are Nino Amato, Wisconsin Industrial Energy Group; R.J. Pirlot, Wisconsin Manufacturers & Commerce; and Earl Gustafson, Wisconsin Paper Council. Our three associations represent the vast majority of the industrial retail electric customers in the state. We appear as a panel in part to help assure the efficient use of your time today, but primarily because our organizations have a singular perspective regarding this draft legislation.

First, we want to express our appreciation to Senator Cowles and Representative Montgomery for your unflinching commitment to energy efficiency and renewable energy programs. These are topics that are frequently not well-understood or appreciated by the public. Your continuing commitment is outstanding and should be widely acknowledged across the state.

We also note our sincere appreciation to your aides and the Legislative Reference Bureau for their work in addressing the many issues this bill impacts. Some of the issues are difficult and controversial, some are fundamental "big picture" topics, and still others are arcane, but no less integral to energy providers and consumers. Your labors to develop this draft as a starting point for further policy development are equally as commendable as the commitment of the legislators for whom you work.

Speaking broadly, we perceive this as a strong, initial step toward development of durable policies for energy efficiency and renewable energy programs that will help reduce Wisconsin's dependence on imported domestic and foreign fossil fuel energy.

However, we have some serious concerns, and recommendations, that we respectfully ask you to address in the final version of the bill.

Assure and Protect Funding Security

From the broadest perspective, it is imperative to our organizations that the Public Benefit funds be used only for those purposes for which they are intended.

We applaud the attempts this draft makes to protect the integrity of the public benefits fund; however, we remain concerned that fund dollars will continue to be susceptible to raids. Since 2003, over \$100 million in ratepayer dollars have been diverted from the energy conservation and efficiency portion of the Public Benefits Fund to the General Fund. This is nothing more than a hidden tax increase on Wisconsin ratepayers and it must be stopped. To that end, we would like to continue to work with the co-chairs, members of the committees and other stakeholders to improve the security of the public benefits fund.

Retain the Cap on Electric Ratepayer Assessments

Turning next to more specific concerns, restoration of the prudent limitations on electric bill increases, which presently exist in state law, is a predominant concern for us today.

Those limitations assure that "...the total increase in a customer's electric bills that is based on the requirement to pay public benefits fees, including any increase resulting from an electric utility's compliance with this section, may not exceed 3% of the total of every other charge for which the customer is billed for that period or \$750 per month, whichever is less." A similar section provides the same limitations for customers of retail electric cooperatives and municipal utilities.

Retention of this text is an absolute imperative for the end-users we represent.

As a customer class they are leaders in investments and achievements in energy efficiency and conservation. However, because of the magnitude of their bills – for example, monthly electric bills topping \$1 million are not uncommon for the larger of these firms – it is absolutely essential that a prudent limitation remain intact to assure that their contributions to the public benefits program do not threaten their economic viability.

The question of bill impacts is not an academic one. Industrials here have been battered by a difficult economy in Wisconsin and the nation; with aggressive competition from manufacturers in other states and nations; with precipitous retail rate increases due to price spikes in electric utility fuels, energy sector infrastructure damage due to natural disasters, and the billions of dollars utilities are investing in generation and transmission construction to help restore and assure energy reliability in coming years.

In light of past history when the legislative and executive branches opted to divert more than \$100 million in funds provided by ratepayers, including the companies we represent, to other uses, the need for the bill limitations is all the more compelling. Removing a prudent limitation on increases in the public benefits component of their already substantial energy bills – a protection an earlier legislature deemed a necessary component of the law – would be myopic public policy. We can state with certainty that it would be fatal to some Wisconsin employers.

We respectfully urge you to retain the limitations as this bill draft continues forward in its development.

Permissible Delay in Achieving Renewable Energy Percentages

The draft modifies existing deadlines by which time utilities must increase their reliance on renewable energy resources; and identifies conditions which may result in the utility being granted a compliance delay, including undesirable impacts on reliability, excessive rate increases, permitting delays, or transmission system constraints. These provisions should continue to be a component of this legislation.

We believe that the reference to “excessive rate increases” (above) should be changed to “undesirable economic impacts on ratepayers.”

Additionally, we are concerned that the underlying policy places responsibility for requesting a compliance delay almost solely with utilities.

We believe that a new public benefits program should include a provision that allows customer representatives to similarly request that the commission consider granting a delay for the same conditions. Adding such a provision will assure equity for all impacted entities: utilities, the commission (which presumably may open an investigation on its own motion or authority) and customer representatives.

We offer the assistance of our associations to assist in drafting such a provision for legislative consideration.

Customer Bill Disclosures

Under current law, utilities include the existing public benefits fees in the fixed charges on customers' bills; under DOA rules, these charges appear as “non-taxable fixed charges,” a name which, for many customers, does not provide meaningful guidance regarding what this charge is. Under the draft, the utility must identify on a customer's bill the public benefits amounts the customer is paying; the commission may specify how the amount is identified. Rather than

potentially continuing to shroud this charge in mystery, the draft ought to require the amount be identified as the "public benefits amount."

Customer-Owned Renewable Facilities as Sources of Renewable Resource Credits

Customer-owned renewable facilities need to be preserved as sources of renewable resource credits for utilities. The bill, however, would eliminate all facilities placed into service before January 1, 2004. In the past year, several paper companies served by Wisconsin Public Service Corporation, with pre-2004 biomass renewable facilities, were certified. These facilities should retain the ability to generate RRCs, and their associated values, to provide customers with a means of mitigating increasing energy costs.

In conclusion, we are enthused by Wisconsin's continuing and revitalized commitment to energy efficiency and renewable energy programs and offer our cooperative involvement in the development of a new public benefits program.

Thank you for the opportunity to discuss our concerns and offer our recommendations.

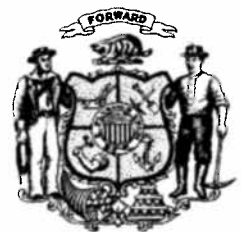
A.J. (Nino) Amato
President
Wisconsin Industrial Energy Group
10 East Doty Street, Suite 800, Madison, WI 53703
608-441-5740
ninoamato@earthlink.net

R.J. Pirlot
Director of Legislative Relations
Wisconsin Manufacturers & Commerce
501 East Washington Avenue, Madison, WI 53703
608-661-6935 (office)
608-658-0817 (mobile)
rjpirlot@wmc.org

Earl Gustafson
Vice-President, Energy, Forestry & Human Resources
Wisconsin Paper Council
205 North Green Bay Road
Neenah, WI 54956
920-722-1500
gustafson@wipapercouncil.org



WISCONSIN STATE LEGISLATURE



Michael Vickerman

Executive Director

RENEW Wisconsin



222 S. Hamilton Street
Madison, WI 53703

Phone: 608.255.4044

Fax: 608.255.4053

Email: mickerman@renewwisconsin.org

Web: www.renewwisconsin.org

RENEW Wisconsin



222 S. Hamilton Street, Madison, WI 53703 • (608) 255-4044 • www.renewwisconsin.org

IMMEDIATE RELEASE
December 22, 2009

MORE INFORMATION
Michael Vickerman
RENEW Wisconsin
608.255.4044
mvickerman@renewwisconsin.org

RENEW: Think Tank Flunks Renewable Energy Analysis

Madison, WI (December 22, 2009) In response to a recent report from the Wisconsin Public Research Institute (WPRI) concluding that policies to increase renewable energy production would be prohibitively expensive, RENEW Wisconsin, a leading sustainable energy advocacy organization, today issued a critique documenting the faulty assumptions and methodological errors that undermine the credibility of that finding.

WPRI's report, titled "The Economics of Climate Change Proposals in Wisconsin," reviewed the proposal in the Governor's Global Warming Task Force to increase the state's renewable energy requirements on electric utilities to 25% by 2025, and estimated a total cost in excess \$16 billion. RENEW's analysis, which is available at <http://tinyurl.com/RENEWcritique>, uncovered a disturbing pattern of "methodological sleight-of-hand, assumptions from outer space, and selective ignoring of facts" that render WPRI's cost estimate to be completely unreliable.

"It appears that WPRI's \$16 billion number was pulled out of thin air, and that its analysis is nothing more than a tortured effort at reverse-engineering the numbers to fit the preordained conclusion," said Michael Vickerman, RENEW Wisconsin executive director.

Specifically, RENEW identified four significant errors in WPRI's analytical approach. The critique says:

- It relies on a grossly inflated electricity sales forecast that is completely detached from current realities.
- The final cost estimate includes all the generation built to comply with the current renewable energy standard, a clear-cut case of double-counting.
- The authors fail to account for existing renewable generation capacity that is not currently being applied to a state renewable energy standard.
- There is a high likelihood that the savings from the renewable energy standard are undervalued, because the authors fail to model plant retirements in their analysis.

"In the final analysis, it would be too generous to describe the analytical approach taken here as incompetent or slipshod," Vickerman said. "What we have here instead is disinformation, pure and simple, and it should be called out as such, especially as the Legislature begins consideration of arguably the most important economic development and environmental protection initiative in many years."

END

RENEW Wisconsin (www.renewwisconsin.org) is an independent, nonprofit 501(c)(3) organization that acts as a catalyst to advance a sustainable energy future through public policy and private sector initiatives.



Think Tank Flunks Renewable Energy Analysis: An Examination of Wisconsin Policy Research Institute's Bogus Methodology

Michael Vickerman

December 22, 2009

A report put out in November by the Wisconsin Public Research Institute contains a number of specious assertions intended to advance the proposition that a number of proposals endorsed by the Governor's Global Warming Task Force in 2008 would be exorbitantly expensive. One particularly dubious finding in the report¹, titled "*The Economics of Climate Change Proposals in Wisconsin*," is its estimate of the net cost of the 25% Renewable Energy Standard (RES) proposed in the climate change bill. The "trained economists"—WPRI's term, not mine—who worked on the report contend that the capital and operating costs of the capacity needed to meet the proposed RES would exceed \$16 billion by 2025. Mindful that this estimate could become a "headline" number in the coming months, I thought it might be useful to dive into WPRI's economic analysis and verify the methodology and assumptions that were used to reach this conclusion.

Having done this, I would like to take this opportunity to catalog the faulty forecasts, transparent double-counting and other methodological errors that enabled WPRI to arrive at this absurdly inflated cost estimate. What I've documented below leads me to conclude that WPRI's \$16 billion number was pulled out of thin air, and that its analysis is nothing more than a tortured effort at reverse-engineering the numbers to fit the preordained conclusion.

1. **The electric sales forecast is grossly inflated.** The report authors assume that annual electricity sales in Wisconsin will climb from its current level (70 billion kilowatt-hours (kWh) in 2008) to 92 billion kilowatt-hours in 2025. Right now, electric load is shrinking, not growing, and 2009 sales will come in somewhere at about four billion kWh below the all-time high set in 2007. So, if we're headed into 2010 with an electric load somewhere between 67 - 68 billion kWh/year, clearly a miracle must occur in order to lift that that number by 26% to reach the 92 billion level in 2025, especially if this climate change bill passes, which it must in order to set the new RES at 25% by 2025. My view is that the state's electric sales will remain flat for the foreseeable future, due to a combination of continued improvements in energy efficiency coupled with subpar economic performance. So if electricity sales remain stable over the next 15 years, then the total supply of renewable energy needed to satisfy the 2025 target would be 17.5 billion kWh/year. This is considerably less than the 28.3 billion kWh of renewable

generation which the report writers claim will be occasioned by the RES (See Table 4 in the report).²

The table below presents the cumulative impact of current and proposed renewable energy policy requirements using more realistic sales forecasts and capacity requirement estimates. When the sales forecast is adjusted to mirror today's load numbers, the capacity cost falls to \$13.5 billion, using the rest of the WPRI methodology, which is clearly flawed, as we shall see.

Cumulative impact of Proposed RE standard in climate change bill

Category	2004 Baseline	2013/2015	2025
RE Percentage	3.3%	10%	25%
Total kWh Sales	68 billion/year	70 billion/year	70 billion/year
Total RE kWh supply (gross)	2.5 billion kWh/year	7 billion kWh/year	17.5 billion kWh/year
New RE kWh supply (net of 2004)	--	4.5 billion/year	15 billion/year
New RE capacity (net of 2004)	--	1,650 MW*	5,400 MW*

* Assumes 90% wind/10% biomass mix; combined capacity factor 32%

- WPRI's cost estimate inexplicably incorporates the cost of the current Renewable Energy Standard into the total price tag.** The WPRI report purports to characterize the incremental cost of increasing the RES above current levels. However, the cost estimates used by WPRI lump in the renewable capacity that will be added to comply with the existing requirements under Act 141. It would appear that WPRI decided to include these costs because the bill would move the compliance date of Act 141's requirement forward to 2013. This is sophistry of the highest order. The 10% renewable content target that Wisconsin utilities must attain is embedded in current law. To avoid the double-counting we see here, the authors of this report should have treated all Act 141-compliant projects as sunk costs, not as new costs. As evidenced by the table below, treating all Act 141 renewable energy acquisitions as sunk costs reduces the incremental addition of renewable generating capacity down to 3,750 MW, compared with the 6,480 MW figure that WPRI cites.

Incremental Impact of Proposed RE standard (net of Act 141)

Net RE increase	15%
New RE supply	10.5 billion kWh /year
New RE capacity	3,750 MW

When the double-counting of Act 141 generation is eliminated, the capacity costs associated with a successor RES decline to a range between \$9 and \$9.5 billion, compared with the \$16 billion figure cited by WPRI. Implicit in that cost range is the assumption that the every kilowatt-hour that is applied toward a successor RES will be generated from a facility that hasn't been built yet. As we shall see in the next section, that is a faulty assumption.

- 3. WPRI's analysis ignores currently available renewable generating capacity that can be used to meet an RES.** WPRI's analysis assumes that all of the renewable capacity needed to meet the 2025 target will be built some time in the future. That assumption fails to account for all the existing wind capacity in the Upper Midwest that is not generating RES-compliant electricity, whether for Wisconsin or another state. Wisconsin one has one such facility--Butler Ridge in Dodge County--that has uncommitted capacity. Though it has a capacity rating of 54 MW, only 20 MW is dedicated under a long-term contract to a Wisconsin electric provider (WPPI Energy). The remaining portion of the project produces energy that is sold into the wholesale market and renewable energy credits (RECs) that the facility owner will sell to anyone wishing to acquire them. There is nothing to stop a Wisconsin utility from acquiring the REC's from Butler Ridge's 34 MW of uncommitted capacity and applying them to its Act 141 requirements and any successor RES.

An REC corresponds to a megawatt-hour (MWH) of electric generation, or 1,000 kWh. How is an REC worth? Over the last two years, REC's have averaged between \$5 and \$10 per MWH, or from half a penny to a penny per kWh. Assuming a 30% capacity factor for Butler Ridge, the cost to a Wisconsin utility of acquiring that facility's annual output of REC's would range from \$45,000 (at a half a penny per kWh) to \$90,000 (at one penny per kWh).

As the table below indicates, Iowa is far and way the regional leader in wind generating capacity. Yet Iowa's renewable energy standard is very modest compared with other state RES percentages, including that of Wisconsin. A significant portion of that capacity falls into one of two categories: (1) owned by an Iowa utility but not committed to that state's RES or (2) owned by an independent power producer (e.g., NextEra Energy, Horizon Wind Energy, berdrola USA, etc.) that does not have a long-term contract with an electric provider). Furthermore, most of the wind turbines in those categories were placed in service after January 1, 2004, and as such are eligible for complying with Wisconsin's RES. My conservative estimate of existing Iowa wind capacity

that could be applied to Wisconsin's RES, over and above those turbines that are either owned by Wisconsin utilities or producing power for Wisconsin utilities, is 750 MW. This quantity of "spare" wind capacity could significantly reduce the quantity of generation needed to be constructed to meet a 25% standard need to manufacture and install produce. As with the example of Butler Ridge, any Wisconsin utility can elect to acquire the REC's from these Iowa installations and apply them to current and future RES requirements.

It should be mentioned that more than 100 MW of existing Iowa wind capacity (e.g., Barton, Endeavor 2, Top of Iowa 2) supply Wisconsin utilities with REC's that are dedicated to their voluntary renewable energy programs, an example being Madison Gas & Electric's Green Power Tomorrow. Because these REC's are being resold to a subset of utility customers at a premium, they cannot be applied to their RES requirements. However, there may come a day when these utilities decide that it would be more cost-effective to apply those REC's to any additional RES requirement rather than build new capacity specifically for RES compliance purposes.

If we were to subtract 750 MW from our running total, the net increase would come to 3,000 MW, which would cost somewhere in the neighborhood of \$7.5 billion, less than half of WPRI's estimate.

Snapshot - Midwest Windpower Development Activity December 2009

State	Operating capacity (in MW)	Under construction (in MW)
Iowa	3253 ⁺	199
Minnesota	1805	60
Illinois	1123	979
Indiana	730 [†]	404
Wisconsin	449	--
Michigan	129	16

⁺ Total includes Alliant Energy's 200 MW Whispering Willow project

[†] Total includes Horizon Wind's 200 MW Meadow Lake project

Sources: American Wind Energy Association, Alliant Energy

4. **WPRI uses the wrong metric to calculate savings from the proposed successor RES.** In Table 3 of the WPRI report, the authors present the gross capacity costs of the new renewable generation and subtract the cost of avoided conventional generation to arrive at a net cost. In this case, the authors assumed that the new renewable generation would offset the construction of natural gas-

fired peaking units. This formulation is reasonable in places where loads are growing and the need to build new generating capacity is well-established. However, those circumstances are no longer operative in Wisconsin, which, as noted above, has experienced a decline in retail sales, due principally to significant consumption cutbacks in the industrial sector. According to the Energy Information Agency's latest Electric Power Monthly report, in-state generation output is running more than 2 billion kWh below last year's totals (through August 2009). Moreover, in consideration of additional efforts by high demand customers to curb electricity usage³, a near-term rebound in overall electricity consumption is simply not in the cards. With a capacity reserve margin that is likely to approach 25% in 2010, the likelihood of a Wisconsin utility proposing to build a gas-fired peaker in the next 10 years is nil.

In light of the growing capacity overhang in Wisconsin, I believe that a more appropriate candidate for measuring savings from the proposed RES would be plant retirements. There are a number of older fossil steam generating units that require the installation of scrubbers and other pollution control technology to bring them into compliance with federal Clean Air Act regulations. There are likely to be instances where a retrofit would not be cost-effective. In those situations, the utility can either sell the generating unit to another entity, as We Energies is attempting to do with its share of Edgewater 5, or retire it.⁴ The savings that would accrue with retiring less efficient fossil steam units would come in two forms: an avoided capital expenditure and a reduction in operating expenses. A utility that times its renewable energy acquisitions to correspond with planned fossil plant shutdowns would accomplish two objectives. The first would be to maximize the reliability value of the renewable generation it acquires. The second would be to stabilize the asset value of its generation portfolio even as it removes an older unit off its system. Moreover, such a strategy would result in a more efficient accumulation of CO₂ offsets, which, one need hardly add, is the ultimate goal of this legislation.

Other Problems

The report makes a number of other assertions that fly in the face of reality. One is that all of the new renewable generating capacity will be located in Wisconsin. No support is provided for that patently ludicrous claim. The authors are clearly oblivious of the many out-of-state wind projects that are either owned by Wisconsin utilities or are generating electricity under contract to Wisconsin utilities. As is indicated in the table below, Wisconsin utilities have not been reticent about building--or taking power from--wind energy installations located in other states.

The RES cost analysis also assumes that Wisconsin utilities will be the sole owners and operators of all post-2013 renewable generating facilities. How the report authors came to that conclusion is utterly mystifying, given the existence of such nonutility-owned

installations as Butler Ridge, Forward Energy Center and Montfort in Wisconsin, not to mention the projects owned by NextEra Energy and Iberdrola Renewables listed above.

**Out-of-State Windpower Projects Owned by or Under
Contract to Wisconsin Utilities**
(In-service dates 2004 and later)

County (State)	Project Owner	MW	Utility Offtaker	Name (In-service date)
Worth (IA)	Iberdrola Renewables	80	WPPI (50 MW) MGE (30 MW)	Top of Iowa 2 (2007)
Worth (IA)	MGE	30	MGE	Top of Iowa 3 (2008)
Osceola (IA)	NextEra Energy	50	MGE	Endeavor 2 (2008)
Hancock (IA)	NextEra Energy	150	Alliant-WPL (100 MW)	Crystal Lake (2008)
Worth (IA)	Iberdrola Renewables	30	WPPI	Barton 1 (2009)
Howard (IA)	WPS	99	WPS	Crane Creek (2009 est.)
Freeborn (MN)	Alliant-WP&L	200	Alliant-WP&L	Bent Tree (2010 est.)

Summary

The report's attempt to characterize the incremental cost impacts of a successor 25% renewable energy standard is fatally flawed in the following ways:

- It relies on a grossly inflated electricity sales forecast that is completely detached from current realities.
- The final cost estimate includes all the generation built to comply with the current renewable energy standard, a clear-cut case of double-counting.
- The authors fail to account for existing renewable generation capacity that is not currently being applied to a state renewable energy standard.
- There is a high likelihood that the savings from the renewable energy standard are undervalued, because the authors fail to model plant retirements in their analysis.

In the final analysis, the convergence of methodological sleight of hand, unsupportable assumptions, and computational errors in this section is telling. The attempt to double-count existing renewable generation toward the incremental costs of a successor RES is especially egregious, and plainly gives away the authors' real intent here, which is to portray the policy in the most negative light they could conjure. It would be too generous to describe the analytical approach taken here as incompetent or slipshod. What we have here instead is disinformation, pure and simple, and it should be called out as such, especially as the Legislature begins consideration of arguably the most important economic development and environmental protection initiative in many years.

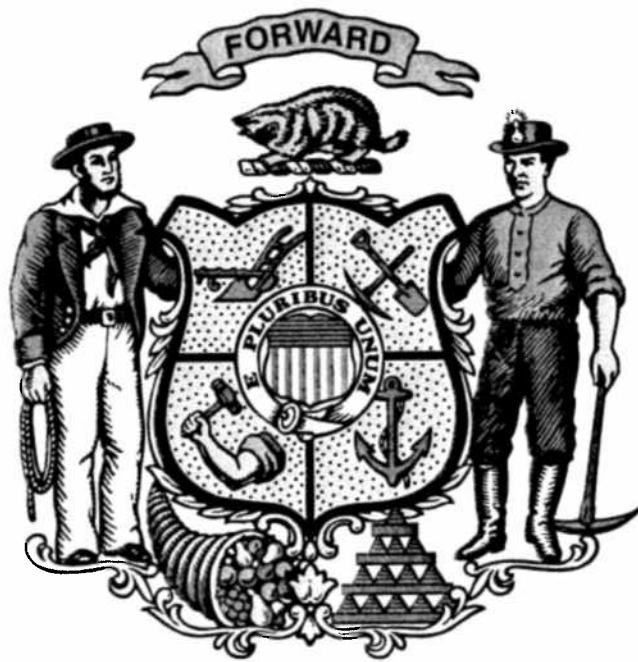
Notes:

¹ <http://www.wpri.org/Reports/Volume22/Vol22No7/Vol22No7.html>

² There seems to be computational error in Table 4 of the WPRI report. If the estimate of total electricity sales in 2025 is 94.116 billion kWh, then 25% of that number is 23.529 billion kWh, not 28.235 billion kWh as indicated in the table.

³ <http://www.jsonline.com/blogs/business/78527027.html>, "Nine state factories pledge to cut energy use," Dec. 4, 2009.

⁴ <http://www.jsonline.com/blogs/business/78724417.html>, "We Energies may sell stake in Sheboygan coal plant," Dec. 8, 2009.





1414 West Hamilton Avenue
P.O. Box 8
Eau Claire, WI 54702-0008
Telephone (800) 895-4999

To: Roy Thilly and Tia Nelson

From: Mike Swenson, President and CEO, NSP- Wisconsin
d/b/a Xcel Energy

Date: Jan. 6, 2010

Re: Comments on Climate Change Legislative Draft – LRB 3881/1

Below are Xcel Energy's comments on the Global Warming Task Force legislative draft. We have listed the issues on which we will comment and then identified whether they are a deviation from the Task Force Report or items we would like to see changed or clarified. We appreciate the opportunity to provide comments.

Enhanced Renewable Portfolio Standard (RPS) (including ARTS)

Deviations from the Task Force Report

- The draft bill removes Refuse Derived Fuel from the definition of biomass. It adds the existing RDF qualification to the definition of renewable energy. It also removes wood from the definition. This poses a concern as both issues were not discussed within the scope of the Task Force discussions and the new biomass definition will no longer compliment the Energy Priorities Law (Wisconsin Statutes §§ 1.12(3)(b)). In our view this change weakens the existing biomass definition as it applies to the expanded renewable portfolio standard. It is unlikely that the enhanced RPS can be cost-effectively met without a full spectrum of environmentally responsible biomass resources, including RDF and wood, available to utilities. Furthermore, the very extensive RPS discussions in the Electric Generation Subgroup would in our opinion likely have failed to reach consensus under this newly proposed definition. Xcel Energy recommends maintaining the existing definition of biomass.

Advanced Renewable Tariffs

Xcel Energy supports maintaining voluntary advanced renewable tariffs and opposes mandatory tariffs. We have identified many problems with the draft; these concerns are listed below.

- 196.379(3)(b) retail electric cooperatives and municipals (small electric utilities) are not included within the renewable tariff recommendations. This is inappropriate as it creates an uneven playing field for rural IOUs and the Cooperatives in particular and is a huge disadvantage in Xcel Energy's service territory.
- Related to the above, the PSC should not have the authority to exempt small electric utilities from the purchase requirement for renewable energy generated at particular types of renewable facilities, e.g. exempt them from having to purchase renewable energy generated at photovoltaic facilities. There should be no exemptions. Every utility needs to be involved and subject to the requirement. There may be room for a sliding threshold however. (IV. A.1.a.i. and iii. Direct the PSC to include the following in the terms for each type of renewable facility.)
- Language has been added to exempt large electric utilities' voluntary initiatives from the legislation. This does not alleviate concerns as it leaves the decision on ARTs to an ever changing Commission.
- Xcel Energy disagrees that there be a uniform statewide standard for advanced renewable tariffs. Each utility should be allowed to take the unique characteristics of its service territory into consideration.
- Xcel Energy opposes the provision that provides a rate of return to the generator comparable to the electric utilities' allowed return. Utilities are exposed to many risks and have many requirements that customer-owned generators are not exposed to or are not mandated to fulfill.
- There should be no adjustments of the price for inflation. It should be a flat cost.
- Xcel Energy has concerns with allowing the PSC to establish a different set of terms for the purchase of renewable energy generated at a particular type of renewable facility that is purchased by an electric utility that is not a class A utility.
- The level of detail in the bill is troubling, i.e. authorize the PSC to cap the total size of the program.
- In section 196.025 (1) (c) 1 the added language at the end is in direct conflict with the language contained in Act 141 that established the earlier RPS, i.e., if utilities are in compliance the PSC cannot order any additional renewable requirements.

Items we would like to see changed/clarified

- During the Task Force discussions, the RPS subcommittee discussed moving away from the baseline percentage but the issue was never resolved. Xcel Energy specifically questioned this point during the Task Force meetings and suggested moving away from the baseline language and establishing a flat RPS goal for all utilities. We were told at the time that we questioned the continuance of the baseline concept that our concern would be addressed during the drafting of the legislative language. Currently Xcel Energy's customers are subsidizing the rest of the state and are being penalized for our early investments. Xcel Energy suggests establishing a flat RPS goal for all utilities.
- Xcel Energy expressed concerns during the Task Force discussions and at the final meeting of the Task Force over the in-state requirement of the RPS noting this will add undue costs to ratepayers. We still maintain this position and support removing the in-state requirement language.
- Clarify that Renewable Resource Credits are also created when entering into a purchase power agreement and establish the purchaser owns the RECs.
- Manitoba Hydro –Whatever is proposed in the legislative language should not apply to existing contracts.

Energy Efficiency and Conservation

Deviation from the Task Force Report

- The biggest change is the funding mechanism for the statewide programs. Instead of funding on a fixed dollar amount (1.2% of utility revenues), the draft sets up goals based on energy savings and then determines the dollar level that will be required to fund the goal. This will increase the percentage of utility revenues needed from ratepayers to support the programs. We support this methodology keeping in mind that affordable rates need to be a consideration when setting energy savings goals that will increase rates for customers. Xcel Energy suggests retaining legislative oversight to ensure customer rates are considered when the energy efficiency goals are established or reviewed.

Items we would like to see changed/clarified

- Xcel Energy supports including “other” fuel types into the Focus on Energy Programs; however, the fuel type must be funded by the users of the fuel type. Monies currently paid through participating utilities should not be used to fund “other” fuel type programs (i.e., propane).

Nuclear Moratorium

Deviations from the Task Force Report

- Xcel Energy has concerns over the provision that would require all of the energy produced from a new nuclear power plant in Wisconsin to be used by Wisconsin ratepayers. This is especially problematic given the interchange agreement that is set up for transfer of energy between NSP-Wisconsin and NSP-Minnesota.
- Given the way Xcel Energy designs and operates its system and the related multistate cost sharing agreement, if we can not consider the combined load growth of NSP-Wisconsin and NSP-Minnesota when considering the construction of a new nuclear plant in Wisconsin it is very unlikely that Xcel Energy, and possibly other utilities, would ever propose a new nuclear plant or unit to be sited in Wisconsin. Essentially the moratorium would stay in place. Xcel Energy suggests removing this language.
- Xcel Energy also suggests removing the non-severability language.

Other Issues

Emission Reduction Targets

Items we would like to see changed/clarified

- Xcel Energy encourages the development of one process for reporting in terms of timing, methodology and jurisdictional agencies (both state and federal).

Freight Idle Restrictions

Items we would like to see changed/clarified

- Xcel Energy would like to see language that includes an exemption for utility trucks that use a PTO (power take off) to operate aerial and digger units or cranes, DC to AC power invertors, safety lighting, and under deck air compressors, equipment repair, and emergencies. These uses all require the truck or equipment to remain idling. Currently, there are approximately 11 states that have idle restriction laws on the books. Attached is a link showing the states, and those idling policies. http://www.atri-online.org/research/idling/2009ATRIIdlingComp_Aug09.pdf The exceptions could be added to the exceptions in 346.94 (21) (d).
- Xcel Energy also would like to see an exemption for utility company power operated equipment such as back hoes, trenchers and skid steers. While this may differ under the utility truck and PTO justifications, this equipment will need to idle from time to time as

well. An example to illustrate the need would be cold weather applications. This equipment utilizes complicated hydraulic systems, and in the cold winter months, the engine must idle in order to circulate and warm the hydraulic fluid before the attachments can be operated.