MEETING NOTICE

Governor's Task Force on Global Warming
Industry Work Group
Friday, December 7, 2007, 9:00 a.m. to 12:00 p.m.

Subdivided room of the Main Conference Room
(The Main Conference Room is down a hall just slightly to the right when entering the front door)
Wisconsin Public Power, Inc.
1425 Corporate Center Drive, Sun Prairie, Wisconsin
(For directions and a map visit the WPPI "directions" page at
http://www.wppisys.org/contact_us/default.asp?CategoryID=30)

REVISED AGENDA

1) Welcome and review of agenda

2) Open Meetings issues and questions

3) Update on Industry emissions issues

4) Review of Roy Thilly's comments and public comments

    a. brief synopsis and group's response

-- BREAK at approximately 10:30 am --

5) Policy Review:

    a. Outstanding Issues:
        i. CHP memo?
        ii. Feebates?
    b. See included memo

6) Industry Work Group's review of other templates and comments

7) Plans for going forward, resolution of outstanding issues

Presentation Expectations

As a preview of the discussion on our Check-In Call, I am providing a brief list of information that the Task Force Co-Chairs hope you cover in your next presentations to the Task Force. We will use our call next Monday to answer your questions about these presentation recommendations and our Work Groups' preparations for the modeling phase in general. The upcoming Task Force meetings -- and presentations by the Work Groups -- on 12/18 and January 4 are crucial as Task Force members will decide *at these meetings* about a) which policies will get forwarded for modeling, b) which polices should get recommended going forward, but don't necessarily need to be modeled, and c) what policies will not be carried forward by the Task Force.

Recommendations for Co-Chair presentations on Dec. 18 or Jan. 4:

A) Give a brief summary of modifications to policy templates – or what has been changed or sharpened up since the last presentation. This is a good time to also highlight public comment your group received, if you wish, and/or present a short list of policies which will not be recommended going forward.
B) Present a list of outstanding issues about policy recommendations that need Task Force decision (aka ideas that did not have consensus in the Work Group, resulting in a policy template not being put forth or a template containing unresolved issues). What are the key issues the Task Force must decide as to what should be modeled – not at this point necessarily recommended.
C) Identify any policy recommendations you believe are good candidates for inclusion in an Interim Report, if we produce one, because there is strong agreement and it is very likely the Task Force will recommend them regardless of modeling.
D) Identify policies the Work Group would like to recommend for modeling. List policies that the Work Group would like to recommend, but don't need modeling.
E) Where applicable, compare Work Group's policies and MGA recommendations.

In order to help the Task Force review & make decisions regarding a Work Group's list of policy recommendations, it is recommended that each group prepare a power point slide (or slides) to project near the end of their presentation. The power point presentation should include a list of policies where Task Force decisions are needed on issues. We will talk more about this on the call on Monday.

Review of Carbon Tax / Cap & Trade Workgroup templates

Here is a short overview of the Cap & Trade Workgroup templates that are out for public comment and a few observations of my own. I'm not an expert on these policies, so Industry Workgroup members should view this with the usual caveats. Those interested in submitting comments should read the templates and not rely on this summary. The comment deadline for most of the templates is November 27.

Policy Templates

- Cap & Trade Program
- Expanded Cap & Trade Program
- Offset Program with a Cap & Trade Program
- Stand-alone Offset Program
- Carbon Tax
- Voluntary Programs

Cap & Trade

- The geographic scope is unspecified. A state-only program would be most expensive. The state should try to tie in with other regional programs.

- Covered sources include utilities and industrial sources. Unclear on coverage of commercial sources -- they are mentioned in the one place, but not other places.
- Covered sources would be those with emissions greater than 25,000 tons per year. Note -- A table in the template indicates that 59 facilities would be covered. However, the threshold would apply on a unit basis. For perspective, there were 54 paper industry emission units that emitted more than 25,000 tons of CO2 in 2005.
- Timeline: Cap emissions at 2009 levels beginning in 2011, then gradually reduce to 1990 levels by 2020. WRI indicates utility/industrial emissions in 1990 of 49.0 million tons and 2003 emissions of 62.5 million tons. The difference is 13.5 million tons, or about 22%. The required reduction would be greater than this amount due to growth in utility emissions since 2003.
- No method of allocating allowances under a cap and trade program is recommended. The workgroup could not reach consensus on allocation versus auction.
- Costs: The template indicates that costs could be between $325 million to $1.3 billion annually, for allowance costs between $5/ton and $20/ton.
- Revenues would be used in unspecified ways to promote energy efficiency, pay for various public benefits-related programs, and/or returned to ratepayers.
- Safety valve and off-ramps should be examined in the future.
- Observations: An effective cap and trade system depends on having a sufficiently large pool of willing buyers and sellers. A national or international cap and trade system would provide the largest pool of buyers and sellers and be the most efficient. To the extent that Wisconsin moves ahead of such a system, the inefficiency of a state-only or regional system would result in increased costs to Wisconsin sources that would not be incurred by competitors outside of the state or regional area. Since the DNR Air Emissions Inventory only requires emissions reporting above 100,000 tons per years, nobody really knows how many units/facilities would be impacted. If emission allowances were auctioned it would put a substantial financial burden on Wisconsin industry. WRI shows 2003 total industry emissions at 19.4 million tons. An allowance cost of $5 to $20 per ton would cost industry between $97 million and $388 million annually, if 100% of allowances were auctioned. If 85% of allowances were auctioned, ala Illinois, the cost would be between $82.5 million and $330 million annually. How much of this amount would get refunded to sources is unclear. It is hard to see how this type of system would not result in substantial increased costs to Wisconsin industry. In addition, some portion of the utility costs would be passed through to industrial customers, further increasing the total cost burden.

Expanded Cap & Trade

- Same as above, except expand the program to commercial, residential, waste, and agriculture sources.

Offsets with Cap & trade

- Unregulated sources could make emission reductions and these reductions could be purchased by regulated sources for compliance purposes.
- All emission reductions would need to be verified, quantified, enforceable, and permanent.
- Observations: It is hard to see how reductions at sources other than traditional stationary sources (utilities, industries) could meet the verified, quantified, enforceable, and permanent requirements. It also appears that it would be very difficult, if not impossible, for sequestration in trees or other crops to qualify as offsets.

Stand-alone Offsets

- All new stationary sources would be required to offset a percentage of anticipated emissions.

Carbon Tax

- Would apply to the universe of sources outside a cap and trade program.

- The form of the tax is unspecified, but would likely be in the form of a gas tax or utility surcharge.
- The estimate cost would be between $253 million and $1.0 billion annually for tax levels between $5/ton and $20/ton.
- The intent is that the program be “revenue neutral” with tax revenues funding energy efficiency programs and other programs.
- Observation: Care would need to be taken to insure that facilities subject to cap and trade are not also indirectly impacted by a carbon tax

Voluntary Programs

- Recommendations include financial incentives, participation by the State of Wisconsin in the Chicago Climate Exchange, creation of a state fund to purchase and retire greenhouse gas emissions, advocating for federal tax deductibility for the cost of purchasing and retiring emission credits.

From: Todd Stuart
Sent: Mon 02/18/2008
Subject: WIEG Comments: Annual Energy Intensity Reduction With Feebate policy template

To: Governor's Task Force on Global Warming
Electric Generation and Supply Work Group
From: Todd Stuart, Executive Director
Wisconsin Industrial Energy Group, Inc.
Re: Annual Energy Intensity Reduction With Feebate
Date: February 18, 2008

The Wisconsin Industrial Energy Group, Inc. (WIEG) submits the following comments regarding the Annual Energy Intensity Reduction With Feebate policy template.

WIEG is a non-profit association of 30 large energy consumers that advocates for policies supporting affordable and reliable energy. WIEG supports energy efficiency efforts as it is the most cost effective option available. In fact, the template highlighted several WIEG member companies and their energy efficiency programs. However, WIEG has significant concerns with the policy recommendations in the feebate template and would strongly oppose a feebate scheme.

WIEG believes the proposed feebate program would be incredibly complex to administer. A feebate would be duplicative and unnecessary if a cap & trade regulatory scheme is implemented. The cap & trade market would be delivering the same incentives/penalties to manufacturers but would probably do so in a more efficient and cost effective manner than any feebate program ever could.

CO_2 emissions from the industrial sector has been flat or declining over time. That is because manufacturers currently have a tremendous built-in incentive to conserve energy and reduce air emissions. WIEG members are already facing fierce global competition and tremendous upward pressure on energy rates. Further cost and rate pressure could make manufacturing uncompetitive and cause industry flight.

WIEG is concerned with the many practical and technical problems created by a feebate:

- There is tremendous variability from facility to facility, even within each major industrial sector(s). It would be very difficult to develop and administer agreed-upon performance standards.
- The feebate proposal would create winners and losers within a sector. Companies would need to beat an average performance standard. Some companies would therefore initially receive a windfall payment or be subject to a penalty. This would be unfair to some companies that may have inherited legacy systems or other internal issues.
- There are barriers to energy efficiency such as capital constraints or regulatory barriers such as New Source Review. The feebate proposal does not address these barriers and therefore could act as a significant penalty for Wisconsin companies. These penalties could become a vicious cycle for some companies.

- In theory, the difference between the "winners" and "losers" should in narrow over time. The average performance standard would be continuously revised upward. Thus, half of the companies in the sector would be penalized even though there might not be a large difference between those facilities above the average and below the average. This means a company could be penalized yet there would be very little public benefit related to carbon reductions.
- It does not make sense to make Wisconsin a regulatory island. Have any other states adopted a comparable feebate program? WIEG is not aware of any states implementing such a system. There probably won't be as a cap & trade scheme should eliminate the need for a feebate. Therefore, the feebate could be an additional business expense that could discourage job retention or expansion here.

Conclusion

WIEG members are already facing fierce global competition and tremendous cost pressure. The market already acts as an incentive to reduce energy intensity and air emissions. A feebate program raises too many questions and could create real costs that will have serious economic consequences.

Thank you for the opportunity to provide comments and feedback. WIEG looks forward to participating in the remaining Task Force meetings. Feel free to contact us with any comments or concerns regarding these comments.

Sincerely,
Todd Stuart
Executive Director
Wisconsin Industrial Energy Group, Inc.

From: Ed Wilusz
Sent: Wed 02/13/2008
Subject: Feebate Template Comments

The following Comments are submitted on behalf of the members of the Wisconsin Paper Council regarding the policy template on a sector-based 2% annual energy intensity reduction with feebate provision.

The Wisconsin Paper Council strongly supports assistance and incentives for energy efficiency. However, we strongly oppose the feebate concept outlined in this template.

We are somewhat confused about whether this is intended to be a voluntary or mandatory program. Item 3 relating to Policy Type states that it is a voluntary program. However, the rest of the template reads as if it were a mandatory program. We oppose mandatory government energy benchmarking, although we think this is a sound energy management approach and a good idea on an individual company basis. There is simply too much variability from facility to facility for the government to mandate a one-size-fits-all energy performance standard. We don't see how the feebate program would work as a voluntary initiative. It seems to us that there would be one company from each industrial sector that would volunteer to be in the program, which would be the best performing facility. Everyone else would not join or would drop out because they would, in effect, be volunteering for a tax that could be significant.

As a general matter, the energy market is working very effectively to drive conservation and efficiency measures by industrial sources. This appears to be confirmed by the WRI analysis that shows industrial

GHG emissions being flat to declining, while GDP continues to grow. This is particularly true in energy intensive industries like pulp and paper. As energy costs continue to increase – and they will continue to increase – the incentive to conserve and become more efficient will extend to less and less energy intensive industries. In short, the market is working and will continue to work.

The feebate proposal divides industry sectors into winners and losers. The baseline for separating the winners from the losers would be the average performance of that industrial sector. It appears that "average" performance would be determined without regard for any objective performance measures. For example, it appears that even if 100% of the companies in a particular industry sector were objectively determined to be operating very efficiently, the bottom 50% of these companies would be subject to the tax. This is fundamentally unfair and amounts simply to a penalty, not an incentive.

Even with a more normal distribution of company efficiencies, the proposal could set up an inescapable penalty system for some companies. We would expect that, over time, the baseline or average efficiency level would improve as the entire industry sector improves efficiency, driven by increasing energy costs. Those companies starting out in the bottom 50% would be chasing an improving average that they may never catch, despite significant efficiency improvements. We would also expect that the spread between efficient and inefficient companies would narrow, over time. In theory, all companies in a sector could essentially be of equal efficiency (and be objectively efficient), with only slight differences (e.g., 11 energy units per production output unit versus 12 energy units per production output unit), yet 50% of the companies would be subject to a tax, while the other 50% benefit. This would be a very regressive tax that would amount to taxation without any meaningful public benefit.

The proposal also ignores the reality that there are limits to energy efficiency. Over time, efficiency gains would be expected to decline. However, under the proposal, if the average overall energy efficiency improvement for a sector falls below 2%, then every company in the sector would pay a tax. This would penalize the exact situation that we should be trying to reward – the achievement of a healthy industry sector that is operating as efficiently as possible. We understand that the measure of concern is energy intensity, and that some companies may be able to meet an intensity goal simply by raising prices (if the intensity measure is based on sales revenue and if the market allows annual price increases in excess of the intensity goal) or by some means other than an actual reduction in energy use. However, in an industry like pulp and paper where demand is increasing slowly overall (decreasing in some grades) and price increases are few and far between, actual energy use reductions will be required and there are limits to how much energy can be reduced.

Finally, this proposal cannot be viewed in isolation. If a company reduces GHG emissions through conservation, who would claim the reduction credit? If it is the utility, that decreases the incentive for companies to conserve. Also, if electric rates are decoupled, the benefit would once again accrue to the utility, not the company.

We strongly urge the Task Force to follow the lead of the Industry Work Group and reject the feebate proposal. The market is working. Let it continue to work.

Edward J. Wilusz
Vice President, Government Relations
Wisconsin Paper Council

From: Jessica Dexter
Sent: Wed 12/12/2007
Subject: comments on Industry templates

There are a couple of policies posted for comment that hold some promise, but by and large this workgroup does not seem to have proposed policies that ensure the real reductions necessary to address Wisconsin's contribution to climate change. Each sector needs to do its fair share, and the industry group has basically sidestepped that obligation by proposing exclusively voluntary programs. There is nothing inherently wrong with voluntary programs and incentives, but they don't guarantee reductions. If voluntary action would solve the global warming problem, then why isn't it solved already?

Emissions Data Feedback Policy

- This is a good policy that lays the groundwork for meaningful GHG reductions.
- This policy should be implemented as soon as possible and establish sector reduction goals.
- The threshold for mandatory reporting should be set low enough to provide complete analysis and avoid the upward creep of emissions while there is still plenty of time to address them.
- Voluntary targets should not be assumed to be met for purposes of modeling.

Wisconsin Business Sustainability Council

- This is a great idea, and good to help share information on best practices among Wisconsin businesses. Businesses can be great innovators, and Wisconsin should play up their home-grown ingenuity.
- Nonetheless, the projected emissions should not be considered certain for the purposes of modeling unless the targets are made enforceable.

Education and Outreach

- This is another good investment, but should serve as a complement to mandatory reductions in this sector, not a replacement.
- Green jobs and workforce development will keep Wisconsin on the cutting edge of a carbon-constrained economy.

Incentives for Energy Conservation and Efficiency and Energy Management

- It is certainly important to promote energy efficiency throughout all energy-consuming sectors.
- One may ask whether it is equitable for the Industry sector to get paid for reductions that everyone should be participating in, especially when they already have a business motive to reduce their energy costs. Perhaps the focus should be on providing loans to businesses that don't have the means to make the capital investments up front.
- Funding should be from a dedicated source separate from the Focus on Energy program.
- Any regulatory "fast track" should not compromise the regulatory requirements themselves nor opportunity for public participation that would normally be provided.

Industrial Boiler Efficiency Improvements

- Yes, industrial boilers should absolutely improve their efficiency. But they should be required to do so, rather than paid to do so.
- Illinois has recommended a commercial boiler thermal efficiency standard of 80% for natural gas and 83% for oil fired boilers for all new boilers. This policy can be found at http://www.epa.state.il.us/air/climatechange/documents/subgroups/cia/standards-for-commercial-industrial-boilers.pdf.

- My comments above regarding the use of Focus on Energy funds and regulatory relief apply equally to the policy as it has been proposed.

Reduction of Emissions of High-GWP Gases

- A comment from DNR indicates this has already been accomplished, but I encourage the group to go back and insure that refrigerants are the only source of High-GWP gases in Wisconsin.
- The suggestion that the group propose a strategy to reduce demand for products whose processes involve High-GWP gases is also a good one.

Jessica Dexter
Staff Attorney
Environmental Law & Policy Center
Chicago, IL

From: louise petering
Sent: Wed 12/12/2007
Subject: comments on Industry templates

Discussions on incentives generally are couched in terms of what industry (or others) will receive for reducing CO_2 output - "doing the right thing."

It strikes me that while incentive payments are necessary (given the mindset in our nation), payments should be reduced by savings experienced by entities that institute changes to their systems that result in lower CO_2 and other greenhouse gas emissions.

Let's get real - companies that balked at DNR requirements to pretreat discharges to MMSD so they would not kill the digestive bacteria at Jones Island ended up reducing their costs because of heavy metals recaptured.

From: Kathryn Sachs
Sent: Wed 12/12/2007
Subject: comments on Industry templates

Attached please find E4's comments on the template concerning Business Sustainability Council, Recognition, and Pilot Projects for Business GHG Reductions.

Thanks.

Kathryn Sachs
Executive Director
E4, Inc.
Madison, WI

ATTACHED DOCUMENT BELOW:

E4 Comments for Global Warming Task Force Industry Work Group on Wisconsin Business Sustainability Council, Recognition, and Pilot Projects for Business GHG Reductions

December 11, 2007

E4 is a non-profit organization committed to innovative, practical, and profitable energy solutions to unite the interests of business and the environment. E4 is an advocate of business and industry and embraces market based solutions to unite the goals of capitalism and environmentalism through improved energy use.

E4 recognizes that investment in technologies to improve sustainability often presents industry and business with significant costs up front. These costs, while often recovered in few years, can be prohibitive to financially strapped businesses investing in such technologies, thus slowing the transition of Wisconsin businesses to becoming efficient and sustainable. As such, incentives like awarding leaders in sustainable best practices can provide a valuable tool to help incent businesses to transition toward being more environmentally responsible.

E4 supports the proposals in this template to recognize/award companies who take early action or go beyond what is required of them. An award system to recognize leaders would unquestionably provide additional incentives to spur investment in efficient technologies. An independent, third party Sustainability Council would be an ideal source to provide this service. As this template mentions, this Council should be a collaborative structure including members of industry and business, non-governmental organizations, and leaders in environmental and emissions fields.

Within the *Demonstration/ Pilot Projects to Reduce GHG* section of this template, E4 has recognized some areas where improvements are necessary. The goal of the pilot programs are to fund projects that span the gap of "proof of concept and marketable project" in order to provide funding for very new technologies. This is an admirable goal, however it rewards exploratory technologies instead of enabling proven, cost effective methods for GHG reductions be widely adopted. This preference for new technologies is important to bring those programs to markets, however, the template uses stringent wording to exclude certain technologies including available energy efficiency technology, which is one of the most cost effective ways to reduce GHG emissions.

Of particular concern to E4 are the clauses pertaining to energy conservation and energy efficiency (5 a and b). These clauses classify energy conservation projects and energy efficiency projects using existing technology as *out of the scope for funding*. While E4 understands that the goal of this pilot program is to foster new technology, E4 believes that the pilot program should concurrently be fostering implementation of effective and proven technologies on a wide scale. Understandably, this work group may have adopted the current wording to avoid the program becoming overrun with energy efficiency projects using existing technology. It is possible, however, to include existing energy efficiency technologies into the pilot program without sacrificing other goals of the program.

E4 posits that an alternative solution would be to set a funding limit on energy efficiency projects using existing technology, or to only fund those projects using existing technology whose incremental returns might be so small as to be prohibitive for a business or industry to invest in otherwise. Another consideration is whether or not to include existing energy efficient technologies that are available but have not been commercialized. Such technologies would likely be ideal targets for such funding, however as currently worded, this template would exclude them from funding. As such, E4 suggests altering the criteria to either include energy efficiency projects using existing technology according to E4's suggested criteria or to more accurately define what "available technology" refers to.

Energy efficiency has been proven to be the most cost effective means of reducing GHG emissions. A recent report published by McKinsey & Company claimed that through *existing mechanisms* like energy efficiency programs including demand response and load management, innovative rate design, and other policy and technology improvements the United States could reduce its overall greenhouse gas emissions by 28%. It is counterproductive to exclude existing technologies for energy efficiency from this program if the overarching goal of this program is to foster technologies and programs that will help the state reduce GHG emissions.

In closing, E4 supports many aspects of this template including the recognition of leaders in adopting sustainable technologies and practices, and the concept of creating a Sustainability Council to evaluate businesses and provide a resource for industry in Wisconsin as we transition to a more efficient and sustainable economic model. E4 does, however, believe that in order to be in line with the over-arching goals of the Governor's Task Force, the pilot program should be looking to foster programs that can be proven to reduce greenhouse gases cost-effectively. The proven way to do that is through energy efficiency. As such, E4 recommends that the Working Group modify this template to better account for the inclusion of existing energy efficient technologies in its pilot programs.

From: Robert Owen
Sent: Wed 12/12/2007
Subject: comments on Industry templates

My name is Robert H. Owen, Jr.

In general, I support most recommendations of the industry group, with some modifications or caveats and one major addition as to industrial electric rate reform.

As to industrial fuel switching, I agree with commenter Don Wichert that allowable wood biomass sources ought not to be too narrowly defined. The goal in this process is to reduce GHG emissions, not to reduce the price of Wisconsin paper-making feedstocks. As the employment in the paper industry in Wisconsin declines, we can afford to pay less and less attention to the desires of that industry to maximize its fossil fuel consumption and minimize fuel switching to biomass.

As to funding all of the initiatives requiring funding, I agree with the Forest County Potawatomi Community that auctioning of GHG emission allowances in the cap-and-trade program would be an excellent funding source. I do think, however, that there would need to be recognition by the PSCW that the costs of such allowances, to the extent that they fund industrial grants and loans, ought to be passed on to industry, not ratepayers in general, in the PSCW electric rate-making process.

I also think that, regardless of the funding source for industrial grants and loans, there needs to be independent review, insulated from this state's utterly corrupt political processes, to make sure that grants are awarded on merit, not political connections and contributions. The purpose of these grants and loans would be to foster industrial energy efficiency and foster production of more energy-efficient products, not to reward fat cat contributors.

Such money should also not be devoted to favoring existing firms over new industrial firms. The growth in Wisconsin industrial jobs is likely to come from the latter. The influence and contributions may largely come from the former, which may be declining in employment (e.g., GM) due to bad decisions made by their management to make energy inefficient products. We should not subsidize energy hogs which are losing market share due to their own failure to adjust to the new market reality of high-priced oil. Rather, we should strive to help the new firms which will replace the hogs with successful energy-efficient products.

I think the industrial recommendations are unconvincing with respect to the potential energy savings in this sector. I think it likely potential GHG savings are far greater than those mentioned for three reasons. First, smaller firms are not as sophisticated about minimizing their electric costs as larger ones. Second, large industrial firms in Wisconsin pay electric rates below actual costs of service. Third, all firms above minimal size pay monthly demand charges which disguise and minimize the real cost of energy, causing them to use more of it. This leads me to a recommendation to be implemented by a reformed and reinvigorated PSCW (after its two hack commissioners are sacked and replaced by competent successors).

I recommend that industrial electric rate structures be reformed to increase the incentive to Wisconsin industry to conserve electric energy. The key reform in this regard would be to stop billing companies for monthly demand (kW) and instead recover the necessary revenue through increased electric energy (kWh) charges. Present-day monthly demand charges in industrial rates confuse smaller firms as to their real cost of electric service and discourage firms of all sizes from pursuing conservation and energy efficiency (CEE) and within-the-fence renewable energy (RE) (e.g., wind turbines) projects. The new industrial electric rates should encourage CEE and RE.

Also worth considering in restructuring electric rates is requiring industrial users to pay the full costs of their service rather than asking residential consumers to subsidize it, as has been the PSCW practice in recent decades. Wisconsin's Robin Hood-in-reverse regulators at the PSCW may need a kick in the pants to end industrial electric rate subsidies, but there's no time like the present to kick this bad habit (and boot the hack commissioners who still pursue it at the same time).

Ending such subsidies will increase the level of industrial electric rates for large industry (small firms are already paying full costs) and cause large industry to increase CEE and RE projects, reducing GHG emissions. Reducing subsidies to fat cats is an effective energy efficiency strategy. It's time to get with it.

Robert H. Owen, Jr.
Middleton

From: Don Wichert
Sent: Fri 12/07/2007
Subject: comments on Industry templates

Comments: Industry Work Group Policy Option: Industrial Boiler Fuel Switching

The proposed policy for Industrial Fuel Switching will limit and complicate the current operation of the Focus on Energy Biomass Combustion program by restricting incentives to industrial operations that only convert to biomass sources described as "forest residues".

The use of the state's land for renewable energy conversion and storage should not be limited by the task force report at this time. All biomass should be included and market conditions, with environmental regulation oversight, should determine the best use of the state's resources.

The current definition for incentives in the Task Force report on industrial biomass use is too restrictive. It is based on the limiting biomass combustion energy resources to "forest residues" a relatively harder to access, increment of forest resources. It specifically excludes wood used currently in the pulpwood, saw log and current forest products industry: "Forest residues include defective portions of trees, unmerchantable trunks, trees removed for purposes of thinning, and materials left behind during logging and management operations. Forest residues do not include pulpwood, saw logs, and other wood used as raw material in the forest products industry. Non-wood biomass would include switchgrass and other similar crops, but not wood"

This definition is limiting and it does not make economic efficient sense to treat a commodity in this manner. Artificial resource exclusions prevent markets from functioning efficiently and reduce competition, innovation and price signals. I understand that the current definition reduced competition and aims to protect important Wisconsin industries, but these same industries can thrive in a new bio-energy economy that is allowed to work without resource constraints.

From a Focus on Energy program perspective, it would be very difficult to limit biomass equipment installation grants for industrial biomass systems that were restricted to forest residues.

Although it does make sense to offer higher incentives for this harder to obtain feedstock, it is not possible to verify on the demand side. It may be possible to offer loggers or biomass aggregators incentives on the supply side, but that should not limit current demand side Focus on Energy incentive structures.

Thank you,

Don Wichert, P.E.
Director, Renewable Energy Programs
Wisconsin Energy Conservation Corporation
Madison, WI

From: Lance Green
Received on: 11/20/07
Group: Industry

Re: Reduction of Emissions of High GWP Gases

The document advises DNR to revise NR488 to apply the same controls we impose on those who salvage equipment containing ozone-depleting refrigerants (CFCs, HCFCs) to those who are salvaging equipment containing the high-global-warming HFC refrigerants.

We can be proud to say we already did that -- the revisions became effective December 1, 2005. You can see the NR 488 language here: http://www.legis.state.wi.us/rsb/code/nr/nr488.pdf . We re-defined what are "regulated refrigerants" as:

"s. NR 488.02(4m): “Regulated refrigerant” means a substance used in refrigeration equipment to transfer heat and which is an ozone−depleting refrigerant or any substance used as a substitute for an ozone−depleting refrigerant which is a hydrofluorocarbon (HFC), a perfluorocarbon (PFC) or a blend of any of these substances.
Note: Hydrofluorocarbon refrigerants include, but are not limited to HFC−125 and HFC−134a; and perfluorocarbon refrigerants include, but are not limited to perfluoromethane and perfluoropropane."

A little bit of background:
The 12/31/95 international ban on CFC production forced auto-makers to switch from CFC-12 to HFC-134a in their 1996 models and in all models since then. This HFC-134a is about 1300 times as strong for global-warming as CO_2 (see the GWPs for HFCs and PFCs here): http://www.epa.gov/Ozone/geninfo/gwps.html).

1996 the Wisc. DATCP revised their regulations regarding those who repair vehicle air-conditioners with CFCs to apply the same requirements for AC systems containing substitute refrigerants, including HFCs. The DNR followed in 2005, as vehicles with the HFC refrigerants were starting to enter the salvage markets. EPA regulations also prohibit the release of HFC and PFC refrigerants.

NR488 requires anyone who salvages any kind of equipment to recover the regulated refrigerants, using trained staff and approved equipment. These substances are being recovered from salvaged vehicles, appliances, vending machines, home and commercial AC and refrigeration equipment by DNR-registered parties. The substances are recycled for re-use or destroyed.

Idea for Industrial Work Group:
I'll offer one related suggestion for possibly reducing emissions of High GWP substances. As you see in the link to GWPs above, these substances are being used in VAST numbers of consumer products and industrial processes. The Task Group may find opportunities in these areas for slowing present emissions and limiting future growth.

Please let me know if you have any questions about the refrigerant program or high GWP gases.
Thanks again for the opportunity.

Lance Green
Wisconsin Department of Natural Resources
Madison, WI

Wisconsin Global Warming Task Force
Industry Workgroup Policy Option:
Sector based 2% annual energy intensity reduction with Feebate provision
Draft - Imes

1. **Workgroup**: Industry

2. **Policy Name:** Sector based 2 % energy intensity reduction with feebate provision

3. **Policy Type:** Voluntary market based energy efficiency initiative with revenue-neutral feebate funding mechanism for clean energy portfolio and carbon footprint reduction projects.

4. **Affected Sectors, Sub-Sectors and/or Entities:** Extend across a broad range of sectors and entities.

5. **Estimated Greenhouse Gas Emissions Reduction Impact:**

   A 2% reduction in 2003 WI Industrial electricity sales would yield an estimated 40,823 metric ton reduction in GHGs. See section 9 for a rough estimation of the GHG reduction methodology.

6. **Estimated Costs:**

   Administrative costs to negotiate sector agreements, program start-up and ramp-up. Sector management of goal setting, performance tracking and reporting requirements will reduce public oversight costs. Feebate collection and allocation by utilities would also reduce public costs. Additional funding may be needed for public outreach, marketing and promotional activities to highlight best practices and recognize top performers. An annual feebate payment will be required for below average performers. As an example: 1%-2% percent of all industrial electricity expenditures were $13 - $26 million in 2005. 1%-2% percent of all industrial natural gas expenditures were also about $13-$26 million in 2005.

7. **Specific Description of Policy Proposal:**

   The proposal essentially combines two ideas: First, that “everyone does their part” through a minimum 2% reduction in energy intensity. Second, that we accommodate growth in sector energy demand with further investments in energy efficiency, renewable technologies and other carbon footprint reducing activities. This strategy, coupled with the replacement of old, inefficient power plants with new, vastly more efficient ones, would dramatically reduce greenhouse gas emissions and other pollution overtime.

Each sector business or entity will be required to reduce its energy intensity/electricity/natural gas use per unit of output by at least 2.0% percent per year on a continuing basis. The unit of output / business metric can be expressed as a production factor, dollar of sales, number of employees or some other agreed upon standard within each sector. The goal is to reduce energy intensity for each sector by 2% each year. In addition, a feebate would be structured so that below average performers pay a fee that would be fed back to above average performers to reimburse clean energy portfolio and carbon footprint reduction costs.

"Feebates" are economic instruments based upon the principle that efficient use of resources should be rewarded by the inefficient. Under this policy option, a fee and a rebate would be combined in such a way that the incentive drives reductions in energy intensity while generating a source of funds for clean energy portfolio investments that help offset growth in sector energy demand. It is important to note that feebates are revenue-neutral, with sector fees paying the rebates, rather than as a tax or budgetary item.

A sector based feebate might work something like this: Each sector business or entity would establish its' baseline energy intensity per unit of production. This ratio is adjusted each year by the average overall percent reduction among all companies in the sector. Companies whose ratio is below the average percentage pay the feebate rate and those funds are fed back to those whose performance is above average to reimburse clean energy portfolio and carbon footprint reduction costs.

The feebate "rate" might be based on the state average electricity and natural gas rates. Companies who perform below the average percentage reduction would pay the difference between their performance and the average performance. For example, if the average overall percentage reduction among all companies in a sector is 3% and a company's reduction is only 1%, the company pays a feebate equal to the difference (2%) of their total annual energy bill. Feebates would be collected from all the below average performers and then fed back to above average performers to reimburse clean energy portfolio and carbon footprint reduction costs.

If the average overall percent reduction among all companies in a sector in a particular year is less than 2%, then each company would pay a feebate equal to the difference between their performance and the 2% reduction requirement. Again, feebates would be earmarked to fund clean energy and carbon footprint reduction projects within each sector.

<u>Selected industry examples</u>:

*In 1996, Quad/Graphics, the state's largest printer, voluntarily committed to reduce its electricity use by 3.0% per year per unit of output (one million printing impressions) on an ongoing basis. As of 2007, the company's estimated average annual electricity use reduction is 2.9%, or equivalent to a 35% reduction in overall electricity use per unit of output compared to 1996.

*As reported in the Milwaukee Journal Sentinel (12/6/07), Johnson Controls "…had set a target of reducing its U.S. greenhouse gas emissions intensity by 18% per dollar of sales between 2002 and 2012, but the company was progressing so quickly toward meeting that goal that it has now set a new target of a 30% drop in emissions per dollar of sales…"

*Miller Brewing Company set a target to reduce greenhouse gas emissions by 18 percent per barrel of production from 2001 to 2006.

Questions to consider?

Should there be a "Good Actor Clause" for those companies with an exemplary track record of energy efficiency so as to opt out of the 2% requirement?

Similarly, do we give credit to companies that already meet some threshold of energy efficiency performance and management system that includes provisions for energy audits, process efficiency improvements, lighting retrofits, etc.?

Is there an opportunity for business mentoring by large companies for small companies within sectors? Might large companies receive additional flexibility or incentives for their mentoring efforts?

Might "Green Tier Charters" be used as the negotiation framework for sectors to manage and report their energy efficiency commitments?

How can we position leading sector businesses to receive significant financial gains from generating carbon credits for a future cap-and-trade system?

Are there potential marketing and branding benefits for sector leaders and for the state as a whole because of innovative energy management and superior environmental performance?

8. **Timetables, Duration and Stringency Option:**

Implement as soon as practical based upon 2007 benchmarked energy use and production outputs. Write agreements, develop charters, market and promote for implementation beginning Jan. 2009. Eventually fold into Midwestern Governor's Association goal requiring 2 percent in energy efficiency improvements each year after 2015.

9. **Explanation of Rough Estimate of GHG Reductions:**

An estimate of GHG reductions can be found looking at a theoretical 2% reduction in 2003 WI industrial electricity use.

According to the Energy Information Administration 2003 Wisconsin Industrial Electricity Sales were 25,821,248 MWhs.

Two percent of this total is roughly 516,425 MWhs.
That's 25,821,248 MWhs X .02 = 516,424.96 MWhs.

Best practice for GHG estimates from electricity consumption is to multiply total consumption by the EPA eGrid electricity subregion emissions rate average. An average of Wisconsin's 3 subregion averages generates an emissions factor of approximately 0.07905 metric tons/MWh.

Therefore, we have the following calculation:
0.07905 metric tons/MWh X 516,425 MWhs = 40,823.39625 metric tons

So, a 2% reduction in 2003 WI Industrial electricity sales would yield an estimated 40,823 metric ton reduction in GHGs.

10. **Rough Estimate of Costs for Selected Years:**

Public administrative costs should be low because each sector will establish energy efficiency goals, negotiate agreements, and provide program oversight. Some third-party oversight of sector performance may be required. Feebate collection, allocation and reimbursement within existing utility bills might also reduce public costs. Additional funding may be needed for public outreach, marketing and promotional activities to share best practices and recognize top performance.

11. **Barriers to Implementation:**

Business sectors may resist the idea of a "feebate" that raises the price of below average performance and lowers the price of above average performance. Sectors must make energy efficiency determinations that are meaningful and account for large and small businesses within each sector. Possible legislation needed to authorize "feebate" funding mechanism.

12. **Other Factors:**

Determine implications for Cap & Trade program implementation, if any.

Governor's Task Force on Global Warming
Industry Work Group
Friday, December 7, 2007, 9:00 a.m. to 12:00 p.m.

Host -- Wisconsin Public Power, Inc.
Subdivided room of the Main Conference Room
1425 Corporate Center Drive, Sun Prairie, Wisconsin

MEETING NOTES

In attendance:

Caryl Terrell	Caroline Garber
Ken Zak	Joe Muehlbach
David Oughton	Steve Steinpreis
David Boyd	Ed Wilusz
John Imes	Nick Sayen
David Stringham	Charles Cole
Nina Plaushin	Mike Gromacki (on phone)

1) Welcome and review of agenda
   a. Several new participants joined. Members introduced themselves. The group reviewed the agenda. The Industry Work Group is expected to make a presentation to the full Global Warming Task Force on Friday Jan. 4, 2008.

2) Open Meetings issues and questions
   a. There were no open meetings questions or issues to discuss

3) Update on Industry emissions issues
   a. The group reached consensus on the following:
   If 1990 is selected as a baseline year and emission reduction policies are driven by this data, the group felt that 1990 data ought to be reviewed and verified. If 1990 data is not used in this way, then this effort is not necessary. Whatever year is selected as a baseline, the data should be reviewed and verified.
   b. A memo stating this position will be drafted and circulated for confirmation, then passed on to the TAG.

4) Highlights of IWG discussion of Roy Thilly's comments and public comments
   a. Focus on Energy
      i. not advocating increasing the funding for Focus on Energy
      ii. not advocating changing the funding allocations among residential, commercial and industrial sectors for current funding levels

iii. Are advocating that within the industrial sector, barriers that currently exist to funding larger or riskier projects be revised(e.g., the ROI could be changed)
iv. If overall Focus funding is increased in the future, the primary criterion for allocating additional funds should be their emission reduction potential = go for the "biggest bang for the buck" in terms of emission reduction

b. After briefly reviewing the MGA proposals, the group raised concern over 2% annual reductions. The group does support an annual reduction in terms of energy intensity, BUT NOT an annual reduction in absolute energy use for the Industrial Sector.
c. The $15 million proposed in the Industry Energy Efficiency General Incentives policy is new money that would be approved by the legislature. (Note: $15 million/yr is what the legislature recently approved for the Renewables Grant and Loan Program.) It would be GPR funds and tax credits, industrial bonds.
d. Process Emissions (High GWP gases) - To the extent these are included in the cap and trade, good. IWG approved having Caryl, Dave Boyd and Lance Green (DNR) explore other options for reducing these emissions.

-- BREAK at approximately 10:30 am --

e. Carbon Tax
   i. There would be administrative difficulties for facilities that have some units covered by the Cap and Trade and others that are not.
   ii. The tax on fuel would hurt industry, particularly those industrial sectors where transportation is a relatively high cost of doing business.
   iii. A tax on fuel is not an effective way to induce changes in driving behavior. It would raise large sums of monies but result in relatively little additional ghg emission reductions.
f. Environmental Permitting – the federal construction permitting regulations limit the ability to streamline permitting for efficiency or boiler conversions at least for larger sources.
   The following was contributed by Ed Wilusz at the request of the Co-Chairs to highlight and clarify this issue:

   The primary regulatory concern is the New Source Review/Prevention of Significant Deterioration program. If a modification, such as a boiler change, would result in an increase in emissions above specified thresholds, the source would need to install Best Available Control Technology (BACT). BACT controls can be very expensive, well into the millions of dollars. Of concern is how an increase in emissions is determined. Under previous law, an increase in emissions at an industrial facility was determined by comparing actual emissions to potential emissions. Under this approach, virtually any project, even a project that decreased actual emissions, would trigger BACT because the difference between actual and potential emissions is almost always greater than the regulatory threshold. This resulted in companies shying away from boiler-related projects because the additional cost of BACT killed the cost-effectiveness of the project. EPA changed its rule several years ago to allow an actual to future actual emissions test. While this new test is currently part of Wisconsin administrative rules, it has not been approved by EPA because environmental groups filed adverse comments. It is our understanding that Wisconsin is one of only two states in this situation. So, from EPA's perspective, the old actual to potential test is still on the books in Wisconsin. In short, regulatory costs can significantly increase the overall costs of a boiler-related efficiency project.

g. Emissions Data Feedback – Dave Stringham will propose some revisions with respect to reporting and data requirements to make the policy template more specific.
h. A lot of questions and concern about cap and trade proposal.
    i. Will try to get someone from the Carbon Group to review the proposal with the Industry Group.
    ii. Recognize that cap and trade will probably be a go and that the IWG should offer the industry perspective for its design.
    iii. Cap and Trade is preferable to a carbon tax

5) Policy Review:
    a. John Imes presented a stand alone template on Feebates. This was done in the closing minutes of the meeting and a full discussion was not held. A digital copy will be provided soon for the group to review.

6) Industry Work Group's review of other templates and comments
    a. The group did not discuss other Work Group templates.

7) Plans for going forward, resolution of outstanding issues
    a. The group decided to meet again.