

## **MEETING NOTICE**

Governor's Task Force on Global Warming  
Ad-hoc Waste Materials Recovery and Disposal Work Group  
Monday, February 4, 2008, 12:00 noon to 3 p.m.  
Xcel Energy conference room  
10 East Doty Street, Suite 511, Madison

## **DRAFT AGENDA**

- 1) Welcome and review of agenda
- 2) Review of progress and outcomes from January 22<sup>nd</sup> meeting  
- Suggestions for template editing?
- 3) Complete untreated-wood template
- 4) Food-waste template
- 5) Beverage container template
- 6) Additional waste materials policy ideas that generate GHG reductions
- 7) Public comments
- 8) Next steps

This meeting is open to the public.

For more information, or if you need special accommodations to attend this meeting,  
contact Nick Sayen, DNR, at (608) 267-2466 or [Nick.Sayen@wisconsin.gov](mailto:Nick.Sayen@wisconsin.gov).

Hi everyone --

I'm following up on several questions that arose during the workgroup meeting last week. (Sorry about the lengthy email.)

**(1) Dave Donovan asked for details on how the recycling statute allows the Xcel Energy French Island waste combustor (and the Barron County combustor) to burn items that are on the landfill/incineration ban list in ch. 287, Wis. Stats. In brief, the statute grandfathers solid waste treatment facilities that were in operation during April, 1990 and that burn materials generated either in a service area that was under contract on January 1, 1993 or out of state. The relevant statutory excerpt is s. 287.07(7)(b)2, Wis. Stats.:**

2. A prohibition in sub. (3) (b), (c), (e), (f), (g), (h) or (j) or (4) (b), (c), (f), (g), (h) or (i) does not apply to a person who converts into fuel or burns at an operating solid waste treatment facility a type of material identified in one of those paragraphs that was converted into fuel or burned at the operating solid waste treatment facility during April, 1990, and either is generated in the operating solid waste treatment facility's current service area or is generated by the owner of the operating solid waste treatment facility.

3. The prohibitions in subs. (3) and (4) do not apply to a person who converts into fuel or burns at an operating solid waste treatment facility any material identified in those subsections if the person converted into fuel or burned the material at the operating solid waste treatment facility during April, 1990, and the material is generated outside of this state.

Note that the communities in the service area for the Xcel facility still include some or all of the banned materials in their local recycling programs; for example, La Crosse County includes newspapers in its recycling program.

**(2) The group requested a definition for mixed recyclable paper. Here is the definition used in the DNR's 2003 Waste Characterization Study, which corresponds to the tonnage figure used in the policy template:**

*Mixed paper - recyclable* - paper that would be included in residential "mixed mail" or commercial "office pack" recycling programs, not including the grades identified above [i.e., newsprint, high-grade office paper, magazines/catalogs, recyclable cardboard, coated cardboard, and boxboard].

*Examples:* Paper bags (including kraft), envelopes, egg cartons, tissue roll cores, telephone directories, books, brightly colored paper, calendars, "junk" mail, tablets with colored glue bindings, wet-strength papers used to package items such as ice cream and cases of soda pop and beer.

**(3) The group asked whether the manufacture of paper products from recovered fiber is less energy intensive than manufacture from virgin fiber and, in general, for more detail on the nature of the GHG benefits from recycling paper.**

According to the EPA's *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, generally the GHG emission reductions associated with recycling of any material (compared to landfilling) come from three areas: a decrease in emissions from raw material acquisition and manufacturing, an increase in carbon sequestration in forests or soils, and a change (positive or negative) in net emissions from landfilling.

In relative terms, the highest benefits of recycling paper by far are those associated with higher forest carbon sequestration, i.e., the fact that fewer trees need to be cut down to provide pulp. The remaining benefits are small by comparison and vary by paper type. Emissions from

manufacturing paper from recovered pulp are lower for newspaper and phone books, about the same for cardboard, magazines and 3rd class mail, and slightly higher for office paper. Likewise, the emissions associated with disposal of paper in landfills vary by paper type and the degree to which each type breaks down in the landfill environment (note that some methane generated by the decomposition of paper is assumed to be captured for energy production, which slightly offsets utility emissions, and some carbon is assumed to be stored in the landfill). Landfilling cardboard, books and office paper creates net emissions of GH gases; landfilling newspaper, magazines and 3rd class mail represents a slight carbon sink. However, *because the GHG benefits from forest carbon sequestration are so high, the net emissions factors for all paper types show a substantial benefit from recycling paper instead of landfilling it.*

This attachment contains the summary data from the EPA report (emissions factors vary slightly from template due to rounding):

[ATTACHMENT INCLUDED AT END OF DOCUMENT]

**(4) The group requested that DNR verify whether the 50-50 split assumed in the electronics template between refurbishing and recycling of old computers is realistic.**

I contacted Neil Peters-Michaud of Cascade Asset Management, a local e-scrap processor, to get further information. He thought the 50-50 assumption was unrealistic for several reasons, among them:

- most household computers are kept much longer than business or commercial computers, so there is little refurbishing potential by the time they are turned in for recycling.
- The reuse rate is higher in businesses, but because of hazardous waste laws these computers generally are not landfilled anyway.
- Household computers that are either donated or used as a second computer in the home may not be displacing newly produced computers.

Neil thought a more accurate percentage of computers that are diverted from landfilling for refurbishing would be on the order of 5 percent. I will re-run the numbers using that assumption and provide it at the next meeting.

**(5) The group asked for additional information on the Chicago city ordinance that requires recycling of materials generated at construction/demolition sites.**

The text of the ordinance is at:

[http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?contentOID=536932617&contentTypeName=COC\\_EDITORIAL&topChannelName=HomePage](http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?contentOID=536932617&contentTypeName=COC_EDITORIAL&topChannelName=HomePage)

I hope to have more information on this topic at the next workgroup meeting.

Please don't hesitate to contact me if you have any questions about the above material --  
Brad Wolbert

ATTACHMENT - Figure 1 – Details of Net Greenhouse Gas Impacts From Paper Recycling Versus Landfilling (MTCE/Ton)

Paper Type	Forest Carbon Sequestration (a)	Recycling Input Credits		Landfilling Emissions				Net Emissions (a+b+c) – (d+e+f+g)
		Process Energy (b)	Transport Energy (c)	Transport to Landfill (d)	Landfill Methane (e)	Avoided Utility Emissions (f)	Landfill Carbon Sequestration (g)	
Corrugated Cardboard	-0.83	0.00	-0.01	0.01	0.34	-0.02	-0.22	-0.95
Magazines and 3 <sup>rd</sup> Class Mail	-0.83	0.00	0.00	0.01	0.14	-0.01	-0.22	-0.75
Newspaper	-0.55	-0.20	-0.01	0.01	0.12	-0.01	-0.36	-0.52
Office Paper	-0.83	0.06	0.00	0.01	0.60	-0.04	-0.04	-1.30
Phone Books	-0.55	-0.17	0.00	0.01	0.12	-0.01	-0.36	-0.48
Textbooks	-0.83	-0.01	0.00	0.01	0.60	-0.04	-0.04	-1.37

Source: US EPA, 2006: *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, Exhibits 8-3 and 8-6.

# **Governor's Task Force on Global Warming**

## **Ad-Hoc Waste Materials Recovery and Disposal Workgroup**

### **February 4, 2008 Meeting Notes**

**Members Attending:** Keith Reopelle, Chair (Clean Wisconsin), John Clancy (Godfrey & Kahn – Forest County Potawatomi Community), Dave Donovan (Xcel Energy), Lynn Morgan (Broydrick & Associates), Steve Hiniker (1000 Friends of Wisconsin)

**Members Via Conference Phone:** Genise Smith-Watkins (PepsiCo); John Piotrowski (Packaging Corporation of America)

**Others Attending:** Marina Dupler (Martin Schreiber & Associates), Kelly McDowell (Wisconsin Beverage Association and Miller Brewing), Nick Sayen (DNR), Brad Wolbert (DNR), Cynthia Moore (DNR)

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#### **I. Review of January 22 Meeting**

Keith Reopelle noted that the workgroup was able to evaluate the paper and electronics policy templates and start on the untreated wood template at the previous meeting. The workgroup also agreed that the emissions reduction estimates in the templates are helpful in conveying the scope and impact of waste management decisions, but do not appear detailed enough to use as inputs in the Task Force's statewide model.

Keith gave a progress report on this workgroup at the full Task Force meeting on January 25.

As a reminder, the overall timetable for the Task Force is as follows:

**Feb. 5:** Task Force meeting; discuss model base case (2003-2024 without interventions)

**~Feb. 5:** draft interim report, including GHG inventory, base case, and consensus policy recommendations, available to public

**Feb. 19:** Task Force meeting

**March:** public input session(s); submit interim report to Governor

**April:** meetings to discuss and debate policy proposals

**May:** final report

At the last workgroup meeting there was general consensus that the paper and electronics templates should be forwarded to the Task Force for consideration. Keith asked whether there are any suggestions for edits or changes to those templates. Responses included:

- **Paper:** John Piotrowski brought up the issue of nonrecyclable paper. In Japan, this material is burned for energy recovery; other options include composting or anaerobic digestion with energy recovery. Keith suggested preparation of a separate template for this material.
- **Electronics:** Genise Smith-Watkins had heard indications from Minnesota that there were unanticipated implementation issues surfacing in their e-waste law. Lynn Morgan indicated that the Sen. Miller's bill in Wisconsin is undergoing refinement with respect to timing and implementation, and suggested that the template could recommend the legislation be improved based on information learned from other states. Cynthia Moore noted that her Minnesota counterparts have acknowledge the need for some tweaks but

have been pleased overall with the rollout of the law. Brad Wolbert said that the emissions estimates in the template need to be changed based on further information regarding the proportions of recovered machines likely to undergo recycling versus refurbishing.

## **II. Policy Templates**

Untreated Wood: Brad Wolbert recapped the template on untreated wood recovery. He indicated he was still waiting for callbacks regarding how successful the Chicago city ordinance (requiring recycling of construction and demolition materials at medium and large projects) has been, but that entrepreneurs have apparently established processing operations in the Chicago area to serve building contractors and help them comply with the ordinance. Lynn reported that similar operations have sprung up in Milwaukee even without an ordinance.

Keith asked for member comments relative to the four policy components of the template: local ordinances requiring recycling; state incentives for infrastructure and market development; removal of regulatory barriers; and, if these are not effective, a landfill ban.

Dave observed that the practicality of a state requirement for local ordinances would vary along urban/rural lines. This might be handled with a phase-in, perhaps based on the magnitude of transport emissions relative to emissions savings from the recovery of the material. It would be simpler for this group not to specify details of such a mandate, but instead to recommend a requirement “where recycling is available” or “reasonably practicable.”

Dave suggested reusing a structure is more efficient than recycling; the Chicago ordinance exempts projects that do not remove at least one outside wall, which might favor remodeling over razing in some cases. Lynn noted that the ban would be similar to the absolute bans on lead-acid batteries, but doubted that a ban would be effective if the ordinances were not. The group was generally in favor of incorporating the Waste Task Force’s recommendations on construction and demolition landfills into this template.

John Clancy recommended that any incentives be made available to both public and private entities (i.e., not necessarily “tax breaks”). Incentives could be funded through the Recycling Fund by using monies that have been diverted to non-waste related purposes in recent budgets. If C&D landfill sites were required to pay the same fees as municipal solid waste landfills, this would increase the funding available for research, market development, and infrastructure capital costs.

The group felt the template should aim for a 50 percent reduction in landfilled wood, with a footnote that additional material is available in C&D landfills. The timeline should be clarified to state that the goal is a state law by 2010, with implementation thereafter.

Food Waste: Brad went over the food waste template, noting that a recovery policy would target large generators (e.g., grocery stores, cafeterias, restaurants) first. Dave suggested existing combustion facilities should qualify as recovery; Brad noted that the EPA emissions factors for food waste composting and combustion are the same. The group had a question about the extent of sequestration of carbon by land application of compost; Brad will follow up. There are also benefits to the soil beyond the greenhouse gas impacts.

John P. noted that anaerobic digestion with energy capture is widely practiced in Germany, and is growing in the US as a way of managing manure on farms. The process is comparable to landfill

gas utilization, but is more efficient and returns organic matter to the soil. Green power from anaerobic digestion qualifies for renewable energy credits.

Lynn suggested that the policy approach could be to facilitate a demonstration project. She noted Waste Management already hosts a commercial project at its Pheasant Run facility where Ocean Spray cranberry material is combined with duck manure to make a successful commercial compost product. Keith suggested avoiding too many constraints on how money in this type of project might be spent, to include applied research.

John P. noted that development of compost use standards would benefit this effort.

Beverage Containers: Brad presented a summary of the beverage container template. The following points were made during the discussion that followed:

- There would be a negative impact to local recycling programs revenues if they lost their aluminum to a deposit system. Steve Hiniker pointed out that this lost revenue could be made up through payments from unredeemed deposits. Lynn noted that weakening in local programs might adversely affect recovery rates for other materials such as paper.
- Waste management systems that charge for garbage collection and offer recycling collection for free might increase overall recycling rates.
- Genise referred to the written comments submitted by the Wisconsin Beverage Association and reiterated that PepsiCo is against deposit systems. She indicated that Michigan has a poor record on recycling of materials other than beverage containers, and suggested that the answer to increasing rates lies in education and single-stream systems.

Keith asked for other ideas on increasing recovery. Kelly McDowell referred to current National Recycling Coalition efforts to re-brand recycling and improve outreach, as well as programs such as Recyclebank that offer economic incentives. Steve noted the lack of recycling opportunities in public and retail spaces. Genise pointed to a Minnesota pilot program in which beverage makers are partnering with the statewide recycling association to increase away-from-home recycling. Dave asked if incentives could be created for localities to better enforce their recycling ordinances. Lynn indicated that single stream collection increases business sector recycling.

Lynn suggested the group consider a new template to increase overall recycling. This might include an education component keying on reducing greenhouse gases, as well as funding for the transition to single stream collection. Dave referred to Xcel's Renewables Development Fund in Minnesota as a potential model, which supports research and renewable energy projects through grants and credits.

John C. suggested that a template on waste oil and filters might also be worth pursuing, based on the corresponding Waste Task Force recommendation.